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NINETEENTH ANNUAL REPORT

OF THE

STATE BOARD OF HEALTH

OF INDIANA

FOR THE

Fiscal Year Ending October 31, 1900, and the Statistical Year Ending September 30, 1900.

TO THE GOVERNOR.

INDIANAPOLIS:
WM B. BURFORD, CONTRACTOR FOR STATE PRINTING AND BINDING.
1901.

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STATE OF INDIANA,
EXECUTIVE DEPARTMENT,
INDIANAPOLIS, November 30, 1900.

Received by the Governor, examined and referred to the Auditor of State for verification of the financial statement.

OFFICE OF AUDITOR OF STATE,
INDIANAPOLIS, November 30, 1900.

The within report, so far as the same relates to moneys drawn from the State Treasury, has been examined and found correct.

W. H. HART,
Auditor of State.

NOVEMBER 30, 1900.

Returned by the Auditor of State, with above certificate, and transmitted to Secretary of State for publication, upon the order of the Board of Commissioners of Public Printing and Binding.

CHAS. E. WILSON,
Private Secretary.

Filed in the office of the Secretary of State of the State of Indiana, November 30, 1900.

UNION B. HUNT,
Secretary of State.

Received the within report and delivered to the printer this 30th day of November, 1900.

THOS. J. CARTER,
Clerk Printing Bureau.

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MEMBERS OF THE BOARD.

T. Henry Davis, M. D., President - - - - - Richmond.
E. D. Laughlin, M. D., Vice-President - - - Orleans.
Jno. H. Forrest, M. D. - - - - - - - - - Marion.
W. N. Wishard, M. D. - - - - - - - - - Indianapolis.
J. N. Hurty, M. D., Phar. D., Secretary - - - Indianapolis.

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REPORT OF STATE BOARD OF HEALTH.

INDIANAPOLIS, November 1, 1900.

Hon. James A. Mount, Governor of Indiana:

The State Board of Health respectfully submits its Nineteenth Annual Report, the same being for the statistical year ending September 30, 1900, and the fiscal year ending October 31, 1900.

SUMMARY OF WORK DONE AND RECOMMENDATIONS.

The Board held four regular and three called meetings during the year. The proceedings of these meetings are given in detail in the body of the report.

The letters and applications for sanitary advice and aid during the year numbered 772. Every application has been answered either by letter or by visit of the Secretary. It is obvious that an average of over two letters and applications per day for State Board aid can not be answered in person by one State Health Officer. We therefore, in this respect, are very weak. When cities, towns, county commissioners, township trustees, school authorities and worthy citizens appeal to the State Board of Health for sanitary aid and advice, it should be given. We therefore ask that you recommend to the next Assembly the necessity of permitting the State Board of Health to fully satisfy these demands of the people. This can be done if the means are given, and also the privilege of employing one or two trained sanitarians such as the sanitary department of Purdue University is yearly graduating. To make the situation quite clear, the following letter (one of many hundreds of its kind) is quoted:

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Lima, Ind., November 17, 1900.

My Dear Dr. Hurty—I am somewhat alarmed at the prevalence of scarlet fever in this village. As yet it has not reached the school, but I would appreciate it if you will kindly let me know what precaution I can take to keep it out of a boarding school. Should not strict quarantine be maintained in houses where there are cases? It seems that this is not done. Of course, I can keep the school from going into the village, but it is almost impossible to break off communication with tradesmen and others who come to the school.

Appreciating very much any information you can give me, I am

Sincerely yours,

J. H. McKENZIE, Rector.

From the above it plainly appears that at Lima inspection and action of the State Board were needed and asked for. The Lima authorities were inactive because of being at a loss as to what should be done and how to do it; and in just such instances the State Board should be permitted to visit, advise and immediately direct. The present law contemplates such work, but adequate provision has not been made. The present appropriation of $6,000 barely suffices to collect, tabulate and publish annually the vital statistics of the State. In other registration States, notably Michigan, where the same statistical work is done as we are doing in Indiana, the cost is about $10,000 per year. We think that this shows the Indiana State Board of Health is collecting the statistics most economically. Now, having collected these statistics, what shall be done? Their worth in business, notably the life insurance business, also their worth in pension matters, in the settlement of estates and their general worth in showing the status and progress of the State in public health matters seems apparent; but there is another great utility in our statistics which the State Board, on account of lack of means, is denied the privilege of securing to the people. We should each month list all homes and families in the State which have been invaded by death from preventable diseases, as typhoid fever, diphtheria, etc., and communicate directly with said families, sending them brief and lucid instructions how in the future to avoid such troubles; having received a blow, they will more likely listen and profit by the instructions. This work has been done in Michigan for over a decade, with the result that Michigan counties bordering Indiana counties, and the whole State of Michigan, shows from 15 to 20 per cent. less loss from controll-

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able diseases than is suffered in Indiana. Further illustration and argument seems unnecessary to show that better expenditure of money to advance the health and happiness of the people could not be made.

During the year the Secretary has made visits in answer to requests as follows:

November 20—Fort Wayne, account smallpox.
November 28—Spencer, lecture, Owen County Farmers' Institute.
December 5—Brookville, lecture, Franklin County Farmers' Institute.
December 21—Anderson, account smallpox.
December 26—Anderson, account smallpox.
July 17—Greensburg, account schoolhouse.
July 20—New Ross, account of drainage.
July 28—Martinsville, account of sewers.
August 1—Alexandria, account of sewers.
August 3—Brownsburg, account unsanitary schoolhouse.
August 6—Bluffton, account special meeting of Health Officers account of epidemic of dysentery.
August 21—Greenfield, account of strawboard pollution of Brandywine Creek.
September 18—Sheridan, account of drainage.
September 25—Lebanon, account of sewers and schools.
September 26—Clark's Hill, account of unsanitary schoolhouse.
September 28—Danville, account of Brownsburg schoolhouse case in court.
September 30—Danville, account of Brownsburg schoolhouse case in court.
October 2—Lafayette, account Clarks Hill schoolhouse case in court.
October 4—Spiceland, account, necessity of a new schoolhouse.
October 9—Franklin, account of smallpox.
October 12—Franklin, account of smallpox.
January 14—Clay City, account of smallpox.
January 25—Peru, account of smallpox.
February 5—Brazil, account of smallpox.
February 16—Lafayette, advice with city council regarding smallpox.
February 23—Brookville, account sanitary lectures.
March 5—Washington, D. C., National Food Congress.
March 21—Fountain City, account unsanitary schoolhouse.
April 3—Peru, account of smallpox.
April 12—Connersville, account of smallpox.
April 20—Connersville, account of lecture.
May 1—Hammond, account of smallpox.
May 1—Michigan City, account of prison inspection.
May 2—Brazil, account of smallpox.
May 4—Logansport, account of smallpox.
May 12—Montpelier, account of smallpox.
May 15—Washington, account of lecture and conference.
May 24—Middletown, account of smallpox.

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May 25—Anderson, account of smallpox.
May 28—Atlantic City, account of Conference of State Boards of Health.
June 14—Elkhart.
June 14—South Bend, account conference with city authorities.
June 18—Marion, account of smallpox.
June 25—Fort Wayne, account of lecture.
August 14—Poneto, monthly meeting of Wells County Medical Society.
August 22—Vincennes, account lecture to County Teachers' Institute.
August 24—Lafayette, account meet with city council on public Health.
August 29—Hope, to inspect a schoolhouse.
September 3—Ekin, to inspect schoolhouse.
September 4—Terre Haute.
September 8—Jeffersonville.
September 14—Gosport.
September 17—Muncie, account nuisance caused by Muncie Pulp Co.
September 28—Vincennes, account of water supply at Vincennes.

SMALLPOX.

This disease prevailed extensively during the year. Probably 75 per cent. of all there was existed in the southern part of the State. The counties invaded were Posey, Vanderburgh, Gibson, Warrick, Spencer, Harrison, Floyd, Clark, Jefferson, Dearborn, Ripley, Jennings, Jackson, Lawrence, Daviess, Sullivan, Greene, Monroe, Franklin, Fayette, Johnson, Owen, Clay, Vigo, Putnam, Hendricks, Marion, Hancock, Randolph, Delaware, Rush, Madison, Hamilton, Vermillion, Warren, Clinton, Tipton, Grant, Jay, Howard, Cass, White, Miami, Wells, Allen, Newton, Lake, Porter, Noble. The total number of cases will never be known because of the inability of so many doctors to make diagnosis. The lowest estimate is 2,800 cases, and of these 470 were reported. The total number of deaths certainly attributable to smallpox was 18, and we know of several which probably were caused by the disease, but reported from other causes. The difficuties met in fighting smallpox are all set forth in the report of experience in Clay County.

MORTALITY STATISTICS.

This is the first report of mortality statistics as collected under the law of 1899, and there will be an absence of the usual remarks concerning inaccuracy which have appeared in all the prior reports

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of this Board. Indeed, this report, so far as death statistics go, marks an epoch in the sanitary history of Indiana. Our Monthly Bulletin has been sought after by statisticians and sanitary authorities from many States and counties, and kind letters commending Indiana's statistics are very many.

Deaths.—The total number of deaths reported for the whole State for the year was 35,458. For the preceding year the total number reported was 19,155, which we knew very well was not near the truth, and so it was stated in the report. The great improvement over the old conditions is most satisfactory.

Preventable Diseases.—The deaths from preventable diseases numbered 12,405. Pulmonary tuberculosis heads the list as a cause of death, 3,164 having perished from this cause. Other forms of tuberculosis caused 1,277 deaths, a total from all forms of tuberculosis of 4,441.

Pneumonia destroyed 2,644. Diarrheal diseases, prevalent mostly among children, caused 2,047 deaths. Typhoid fever, prevalent mostly between the ages of 18 to 40, caused 1,431 deaths. There were 666 deaths caused by diphtheria, 59 by croup, 152 by scarlet fever, 85 by measles, 87 by whooping cough, 377 by cerebro-spinal meningitis, 426 by influenza, 172 by puerperal septicemia, 1,034 by cancer, 1,536 by violence and 18 by smallpox.

For purposes of statistical comparison, it was decided to divide the State into three sanitary sections, and the division used by the United States Weather Bureau was adopted. This makes it possible to consider deaths in conjunction with meterological phenomena and in geographical relationship. Reference to the chart in the body of the report will show at a glance the boundaries of the three sanitary sections and will also show the distribution of total deaths and deaths from certain preventable diseases. Following the chart is a table giving monthly comparisons by sanitary sections.

Urban and Rural.—The total urban popluation is 847,302 and for the year reported 12,736 deaths, a rate of 15 per 1,000. The total rural popluation is 1,669,160, reporting 22,722 deaths, a rate of 13.5 per 1,000.

The deaths from pulmonary tuberculosis were: Urban, 1,289, a rate per 100,000 of 152.1; rural deaths, 1,875, rate 112.3. Other forms of tuberculosis—urban, 392 deaths, rate 46.2; rural.

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885 deaths, rate 53. From all forms of tuberculosis the rates are—urban, 99.1, and rural 82.6. The urban typhoid deaths numbered 412, a rate per 100,000 of 48.6; rural, 1,019, rate 61. In nearly all the States the rural typhoid rate exceeds the urban. The urban diphtheria deaths numbered 285, a per 100,000 rate of 33.6; rural 381 deaths, rate 22.8. Scarlet fever caused 55 urban deaths, a rate of 6.4; rural 97 deaths, rate 5.8.

Pneumonia, from the figures, appears much more prevalent and destructive in cities than in the country. The urban deaths from this disease were 1,069, rate 126 per 100,000; rural 1,575 deaths, rate 94.3. Diarrheal diseases show a like relationship as pneumonia, the figures being: Urban 721, rate 85; rural 1,326 deaths, rate 78.2. Cerebro-spinal meningitis stands: Urban deaths 271, rate 31.9; rural deaths 106, rate 6.3. Influenza appears as more destructive in the country—urban deaths 131, rate 15.4; and rural 295 deaths, rate 17.5. Puerperal septicemia also appears with a higher country rate—urban deaths 47, rate 5; rural deaths 127, rate 7.6.

The statistics as regard cancer are particularly interesting, because the rate is greater for cities than for the country. The number of urban deaths from cancer was 482, which makes a rate of 56.8 in 100,000; and the rural deaths from this cause were 552, making a rate of 33. On the other hand, violence destroyed more people in the rural districts than in the cities, the figures being 493 violent deaths in the cities, making a rate of 58.1, while there were 1,043 violent deaths in the rural districts, making a rate of 62.4.

The mortality of the cities present certain interesting features. Vincennes shows the highest death rate, which was 19.2 in the 1,000. Marion has the next highest death rate, which is 17.4, followed by Jeffersonville with 17.3. Indianapolis, New Albany, and Lafayette have exactly the same death rate, which is 16.5. Muncie's death rate is 16.3, Anderson 16, Elwood 15.9, Terre Haute 15.7, Richmond 15.7, Evansville 15. The lowest city death rates are found in Hammond (10.1) and Elkhart (11.5). It has above been shown that the tuberculosis rate is greater in the cities than in the country, and we find that in this disease Jeffersonville leads with a rate of 250.6 in the 100,000 annually. The next city is Lafayette, with a rate of 242.8, followed by Logansport 228.3,

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Vincennes 214.6, Marion 207.6. The city having the lowest consumption death rate is Hammond, which shows 32.3; the next lowest is Michigan City, with a rate of 74.

Typhoid Fever.—Marion leads in this disease with a rate of 115.3 in the 100,000 annually. Next comes New Albany with a rate of 96.9, Vincennes 87.8, Muncie 71.6, Evansville 60.8, Terre Haute 59.9, Jeffersonville 55.6, Richmond 49.3, Indianapolis 44.3. In diarrheal diseases Muncie leads the list with a rate of 167.1 annually in the 100,000. The next is South Bend with a rate of 141.6, and then Anderson 138.7, Logansport 132.6, Elwood 131.2, Vincennes 107.3, Evansville 104.7, Terre Haute 95.4 and Indianapolis 85.1. The lowest rate in this class of diseases is found at Richmond, which shows 27.4. We are well aware that these comparisons do not establish fully the healthfulness of the various cities, but they are nevertheless of value and are to be considered. When ten years of such statistics have accumulated, and are considered together, then correct conclusions as to healthfulness may be drawn.

Mortality Tables.—The mortality tables which have been prepared and which appear in the report, will, we think, prove to have much value. It would be of advantage to prepare still further tables, exhibiting other relationships, but the office force allowed is not equal to the task.

REPORTS OF VISITS.

In reports of visits by the Secretary he has endeavored to give a complete account of every visit, telling why the visit was made, the conditions of affairs which prompted it and what was done or recommended. It is believed that the careful perusal of these reports will plainly show that a very great deal of good has been done, not only in the way of securing better sanitary conditions, but by educating certain classes in sanitary science.

THE PURE FOOD AND DRUG LAW.

This law, passed in 1899, made it the duty of the State Board of Health to look after its enforcement. No specific appropriation was made, and therefore nothing could be done. In order to prop-

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erly enforce a food law, a chemical laboratory is necessary. There are but two ways of knowing when foods and drugs are adulterated or when foods are unwholesome. The first is by trying them upon the people, and if ill results follow, the conclusion is apparent that unwholesomeness exists. This is the method now in use. The second method, the one in use in all the States bounding Indiana, is to keep up continual inspection of foods and continually make analyses. The courts demand an analysis, and so it appears that even the first method of discovering unwholesomeness and adulteration is not sufficient in itself to enable punishment to be meted out to those who would deal in adulterated and unwholesome foods. The first need to enforce the food law would be a laboratory under the immediate direction of the State Board of Health. Indeed, without such laboratory our food law will have to lie inert upon the statute books. To show how absolutely necessary it is that analyses should be made, we quote from "Farmers' Bulletin 122," United States Department of Agriculture. In this Bulletin is an article with the following heading: "The Working of a Pure Food Law," and what is said therein is herewith quoted:

In 1898 the General Assembly of Kentucky enacted a law providing for the inspection of food products sold in that State, and intrusted the work to the agriculture experiment station. The station has recently submitted a report of operations under the law in 1898 and 1899. The main results are summarized in the following table:

KIND AND NUMBER OF SAMPLES COLLECTED FROM JUNE 13, 1898, TO DECEMBER 31, 1899.

Article sampled.	*Not found Adulterated.*	*Adulterated.*	*Total.*
Baking powder	11	45	56
Butter	118	29	147
Canned goods	6	..	6
Catsups, pickles, etc.	12	45	57
Coffee	2	1	3
Corn starch	1	..	1
Flour (wheat)	20	..	20
Jellies, preserves, etc.	5	18	23
Lard	29	11	40
Milk (sweet and buttermilk)	115	35	150
Milk color	1	..	1
Mincemeat	..	7	7
Oleomargarine	2	16	18

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Article sampled.	Not found Adulterated.	Adulterated.	Total.
Olive oil	1	1	2
Pepper, spices, etc	3	11	14
Sweet cider and grape juice	..	3	3
Soda (cooking soda)	3	..	3
Syrups, honey and sugar	41	9	50
Vinegar	67	59	126
Total	437	290	727

These results clearly show the necessity for a pure-food law. Fully 40 per cent. of all samples of food taken have been found adulterated. Some of the adulterants used are injurious to health: others have been put in to cheapen articles of food. As examples of the former, the inspectors found so-called "fruit jellies" made wholly or in part of glue and artificial coloring and flavoring matters.

They found salicylic acid, sometimes in large quantities, in tomato catsups, preserves and other food products which were sold as pure, and formaldehyde and other preservatives in milk, which perhaps in some cases was fed to infants. The most striking example of all is in the case of essence of peppermint and essence of cinnamon. These extracts both contained "wood alcohol," a poisonous substance, as one of the ingredients. In the preparation of these essences a mixture of wood alcohol and common alcohol was used in place of common alcohol, presumably to avoid the government tax on alcohol.

This condition of affairs is by no means confined to Kentucky. Equally flagrant instances of adulteration are reported in the publications of other stations engaged in the inspection of foods and from many other sources.—The Editor.

Never in the world would it have been known that this condition existed in Kentucky, with its attendant ill health and swindling, had it not been for chemical analyses. It has been repeatedly suggested that we should utilize the laboratories of our State Universities for analytical work. Upon investigation it will be found that this would be quite impracticable. The laboratories of our State Universities are teaching laboratories, and not adapted to making analyses of the character necessary for the enforcement of a pure food law. It is also true that the professors, who would be the only ones competent to do the work, are constantly employed in teaching. It appears, therefore, that in order to keep up a continual inspection and unceasing analyses of the foods offered for sale in Indiana that the professor in charge would have to give up teaching in order to do so. In addition to this, whenever adulteration was found it would be necessary for the teacher to leave

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his work, appear in court in order to give testimony, and it would also devolve upon his department to carry on prosecutions. Surely no further facts or arguments are necessary to show how very foolish it would be to thus ruin the chemical departments of our universities. The writer hereof has particularly questioned the presidents of our universities, and they announce that they would be compelled to oppose with all their might any movement calculated to impose upon their colleges the enforcement of the food law with its inspections, analyses and prosecutions. Wisconsin and Michigan appropriate annually $18,000 for the enforcement of their food law. Ohio spends over $23,000, while Massachusetts records an expenditure of something like $30,000. Report of the cost of the work which has been done in Kentucky has not been secured. It is undoubtedly true that a laboratory of hygiene, as here proposed, would save annually to the people large sums of money, and would also promote the public happiness materially. The swindles and frauds which are daily perpetrated in the sale of foods and drugs are a source of loss to the people and also a cause of moral degradation. If the laboratory were to do nothing more than to stop these evils, the result would be well worth all it would cost, but it must be remembered that in this laboratory would also be done a great deal of very necessary health work. The State health law charges the State Board as follows:

> They shall make sanitary investigations and inquiries respecting the causes of disease, and especially of epidemics; the causes of mortality, and the effects of localities, employments, conditions, ingesta, habits and circumstances, on the health of the people.

This command of the law can not be enforced without a laboratory. For how can sanitary investigations be made complete, thorough and exhaustive without chemical and bacteriological research? How also would it be possible to make a study of ingesta in their relationships to the public health without the aid of chemistry.

Another work which the laboratory would accomplish would be the saving of streams from pollution and the industries which pollute the streams from destruction. The industries which pour polluting matter into the streams, which include strawboard works, tinplate mills, tanneries, dye works, starch works, slaughterhouses, etc., have a total capital exceeding twenty million dollars. They pay out annually almost five million dollars in wages, they pay large

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sums annually in taxes and use up annually several million dollars' worth of raw materials. Under the present law these industries are threatened with destruction. Indeed, two large factories have already left Indiana on account of prosecutions under the present laws. These industries were given bonuses in the beginning and now are driven away. If the stream-polluting industries can be preserved without injury to property or the public health, it would evidently be a measure of economy and of public policy to preserve them. This science can certainly do, and the work of doing it would devolve upon a laboratory of hygiene as is recommended by this Board. The process would be in said laboratory to first analyze the refuse and polluting matters which proceed from these factories and then advise a practical and practicable method of sanitary disposal. This method could be imposed upon the industries through a special statute, and thus they could be saved and the pollution of the streams prevented. This method is already pursued with great success in Massachusetts. Ohio two years ago partially adopted the method, and in consequence is getting only partial results. We submit it would be a great calamity to our commercial interests of the State to drive out of the State any portion of the twenty million dollars of capital which is now invested in industries which pollute the streams, provided they can be saved by the means proposed. It thus appears that on account of all the work which this laboratory would be able to do with the original investment required to establish it, and the annual appropriation necessary to conduct it, would be a mere nothing as compared with the splendid, economical results obtained. We think reasons sufficient have been given for the establishment of a laboratory of hygiene and most respectfully request that the subject be given your earnest attention, and if possible, that your message to the next Assembly treat upon this matter as seems best in your judgment.

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FINANCIAL STATEMENT.

RECEIPTS.

By appropriation, office expenses	$6,000 00
By appropriation, Secretary's salary	2,400 00
By appropriation, Chief Clerk's salary	900 00
Total	$9,300 00

DISBURSEMENTS.

1899.			
Nov.	1.	Jas. W. Hess, postmaster, postage stamps	$50 00
"	1.	Wm. B. Burford, printing and stationery	724 63
"	1.	Aetna Cabinet Company, file case	74 00
"	1.	Mary J. Burke, reporting conference meeting	25 00
"	15.	May Stuart, clerical services	17 50
"	16.	Lena Goodspeed, clerical services	14 00
"	28.	Grace Harrison, clerical services	6 00
"	29.	Myla Cooke, clerical services	35 00
"	29.	Eva Fitzgerald, clerical services	35 00
"	29.	May Stuart, clerical services	35 00
"	29.	Eva D. Campbell, clerical services	35 00
"	29.	Badger Furniture Co., roll-top desk	45 00
"	29.	Pettis Dry Goods Co., soap	1 08
"	29.	National Publishing Company, 3 maps	2 94
"	29.	Central Union Telephone Co., rental and toll	32 25
"	8.	Secretary, expenses	64 70
"	29.	The New Telephone Co., rental and toll	20 45
"	29.	American Toilet Supply Company, laundry	2 25
Dec.	5.	J. W. Hess, postmaster, stamps	50 00
"	8.	T. Henry Davis, expenses attending Board meeting	10 00
"	8.	J. H. Forrest, expenses attending Board meeting	11 20
"	8.	E. D. Laughlin, expenses attending Board meeting	21 59
"	8.	The Fred Deitz Company, 12 boxes with locks and hinges	9 60
"	8.	United States Express Co., expressage	3 10
"	8.	Bowen-Merrill Co., 1 publication	2 00
"	8.	H. Stearns, soap	1 00
"	15.	Lena Goodspeed, clerical services	15 00
"	30.	May Stuart, clerical services	35 00
"	30.	Eva Fitzgerald, clerical services	35 00
"	30.	Eva D. Campbell, clerical services	35 00
"	30.	Myla Cooke, clerical services	35 00
1900.			
Jan.	12.	Western Union Tel. Co., telegrams	1 65
"	12.	T. Henry Davis, expenses attending Board meeting	6 50
"	12.	E. D. Laughlin, expenses attending Board meeting	10 92
"	12.	Lena Goodspeed, clerical services	11 00

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DISBURSEMENTS—Continued.

Jan.	13.	Eva Fitzgerald, clerical services	$17 50
"	12.	Secretary, expenses	39 06
"	12.	Editor Sanitarian, 5 copies Sanitarian	21 05
"	12.	Wm. B. Burford, printing and stationery	292 45
"	12.	P. Blakiston's Son & Co., subscription to British Food Journal	2 00
"	12.	New Telephone Co., rental	10 00
"	12.	Pettis Dry Goods Co	57
"	12.	Central Union Co., rental and toll	28 95
"	12.	Secretary, 12 water analyses, at $5.00 each; 12 sputum examinations, at $1.00; 42 diphtheria examinations, at $1.00	114 00
"	20.	J. W. Hess, postmaster, postage stamps	50 00
"	22.	Pearl Shannon, clerical services	2 00
Feb.	1.	May Stuart, clerical services	35 00
"	1.	Grace Harrison, clerical services	35 00
"	1.	Eva D. Campbell, clerical services	35 00
Mar.	1.	May Stuart, clerical services	35 00
"	1.	Grace Harrison, clerical services	35 00
"	1.	Eva D. Campbell, clerical services	35 00
"	2.	H. Stearns, soap	1 00
"	2.	Wm. B. Burford, printing and stationery	409 55
Feb.	10.	Lena Goodspeed, clerical services	12 00
Mar.	2.	American Toilet Supply Co., laundry	2 25
"	2.	Samuel Laing, tin sprayers	4 35
"	2.	United States Express Co., expressage	75
"	2.	Interstate Press Clipping Bureau, clippings	3 00
"	2.	H. Hough & Co., camera supplies, and printing	8 70
"	6.	Grace S. Carter, money advanced for stamps	5 00
"	12.	J. W. Hess, postmaster, postage stamps	50 00
"	13.	Lena Goodspeed, clerical services	12 00
Apr.	1.	Grace Harrison, clerical services	35 00
"	1.	Eva D. Campbell, clerical services	35 00
"	1.	May Stuart, clerical services	35 00
"	6.	Lena Goodspeed, clerical services	10 00
"	6.	T. Henry Davis, expenses attending Board meeting	10 00
"	6.	J. H. Forrest, expenses attending Board meeting	13 95
"	6.	E. D. Laughlin, expenses attending Board meeting	21 84
"	6.	New Telephone Co., rental and toll	10 20
"	6.	Central Union Tel. Co., rental and toll	28 00
"	6.	Wm. B. Burford, printing and stationery	88 83
"	6.	Secretary, expenses	81 24
"	6.	Journal of Applied Microscopy, 1 subscription	1 00
"	6.	Philadelphia Medical Publishing Co., 1 subscription	3 00
"	6.	Queen & Co., Loykas flasks, 1 airmeter, Wolpert air tester	38 62
"	6.	Francis & Stokes, vaccine points, soap, formalin, spray	12 92
"	6.	Interstate Press Clipping Bureau, clippings	1 50
"	18.	Enoch Hogate, legal services, Brownsburg schoolhouse	10 00

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DISBURSEMENTS—Continued.

Apr.	25.	Jas. W. Hess, postmaster, postage stamps	$50 00
May	1.	May Stuart, clerical services	35 00
"	1.	Grace Harrison, clerical services	35 00
"	1.	Eva D. Campbell, clerical services	35 00
"	8.	T. Henry Davis, expenses attending conference	5 00
"	8.	Wm. B. Burford, printing and stationery	122 18
"	8.	United States Express Co., expressage	1 00
"	8.	Lena Goodspeed, clerical services	12 00
"	8.	American Toilet Supply Co., laundry	2 25
"	8.	J. A. Egan, dues to National Conference	10 00
"	8.	Western Union Tel. Co., telegrams	2 03
"	14.	Grace Harrison, clerical services	20 00
June	1.	May Stuart, clerical services	35 00
"	1.	Nellie Price, clerical services	18 00
"	1.	Eva D. Campbell, clerical services	35 00
"	6.	Jas. W. Hess, postmaster, postage stamps	50 00
"	30.	Maud Hoffman, clerical services	17 50
"	30.	May Stuart, clerical services	35 00
"	30.	Eva D. Campbell, clerical services	35 00
"	30.	Maude Linn, clerical services	35 00
July	13.	T. Henry Davis, expenses attending Board meeting	5 00
"	13.	J. H. Forrest, expenses attending Board meeting	6 20
"	13.	J. H. Forrest, attending Conference of State and Provincial Boards of Health, at Atlantic City	125 40
"	13.	E. D. Laughlin, expenses account smallpox	4 55
"	13.	E. D. Laughlin, expenses attending Board meeting	10 67
"	13.	Secretary, expenses	197 01
"	13.	Western Union Tel. Co., telegrams	2 91
"	13.	New Long Distance Co	2 70
"	13.	New Telephone Co., rental	10 00
"	13.	United States Express Co., expressage	43
"	13.	J. E. Shideler, acting postmaster, postage stamps	50 00
"	13.	Wm. B. Burford, printing and stationery	137 12
"	13.	Grace S. Carter, freight, express and drayage	3 30
"	13.	H. Hough & Co., developing and printing pictures	5 84
"	13.	H. Stearns, soap	1 65
"	13.	Mary J. Burke, reporting conference	25 00
"	13.	Bowen-Merrill Co., 1 publication	1 50
"	13.	Central Union Tel. Co., rental and toll	30 35
"	13.	Parke, Davis & Co., mds	4 38
"	13.	Interstate Press Clipping Bureau, clippings	9 00
Aug.	1.	May Stuart, clerical services	35 00
"	1.	Eva D. Campbell, clerical services	35 00
"	1.	Maude Linn, clerical services	35 00
"	1.	Maude Hoffman, clerical services	17 50
"	27.	Edwin L. Plummer, 12 lantern slides	6 50
"	27.	D. H. McDonald, pictures of typhoid house	3 00
Sept.	1.	May Stuart, clerical services	35 00
"	1.	Eva D. Campbell, clerical services	35 00

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DISBURSEMENTS—Continued.

Sept.	1.	Maude Linn, clerical services	$35 00
"	1.	Maud Hoffman, clerical services	17 50
"	6.	Geo. F. McGinnis, postmaster, postage stamps	50 00
Oct.	1.	Maud Hoffman, clerical services	17 50
"	1.	May Stuart, clerical services	35 00
"	1.	Maude Linn, clerical services	35 00
"	1.	Eva D. Campbell, clerical services	35 00
"	1.	Central Union Tel. Co., rental and toll	22 85
"	1.	New Telephone Co., rental	10 00
"	1.	New Long Distance Tel. Co., toll	3 55
"	1.	Cyrus A. Smith, 100 tubes blood serum	5 30
"	1.	Wycoff, Seamans & Benedict, adjustment of typewriter	50
"	1.	Wm. B. Burford, printing and stationery	297 89
"	1.	American Toilet Supply Co., laundry	3 75
"	1.	The Office Supply Mfg. Co., aluminum bath and cloths	5 70
"	4.	Smith-Premier Typewriter Co., 1 copy holder	2 00
"	4.	Secretary, expenses	79 60
"	5.	Western Union Tel. Co., telegrams	4 92
"	5.	E. D. Laughlin, expenses attending Board meeting	11 15
"	5.	J. H. Forrest, expenses attending Board meeting	6 30
"	5.	T. Henry Davis, expenses attending Board meeting	5 00
"	1.	Pettis Dry Goods Co., soap	64
"	4.	Geo. F. McGinnis, postmaster, postage	50 00
"	23.	Bowen-Merrill Co., 2 publications	3 00
"	23.	Badger Furniture Co., special cabinet	94 00
"	25.	H. Hough & Co., developing pictures	7 10
"	31.	May Stuart, clerical services	35 00
"	31.	Maude Linn, clerical services	35 00
"	31.	Ona Grube, clerical services	35 00
"	31.	Eva D. Campbell, clerical services	35 00
"	31.	Maud Hoffman, clerical services	17 50
"	25.	Secretary, expenses	119 70
"	25.	J. H. Forrest, expenses attending Board meeting	9 70
"	25.	T. Henry Davis, expenses attending Board meeting	7 25
"	25.	Geo. F. McGinnis, postmaster, postage stamps	135 42
		Secretary's salary for one year, ending Oct. 31	2,400 00
		Chief clerk's salary for one year, ending Oct. 31	900 00
		Turned into general fund	79 05
		Total	$9,300 00

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MINUTES AND TRANSACTIONS.

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FIRST QUARTER.

OFFICE INDIANA STATE BOARD OF HEALTH,
Indianapolis, January 12, 1900.

Regular quarterly meeting for quarter ending December 13, 1899.

Members present: Drs. Davis, Laughlin and Hurty.

President Davis presided.

Minutes of last quarterly meeting and minutes of special meeting of December 8 were read and approved.

Secretary's report for quarter read and approved.

REPORT OF SECRETARY FOR QUARTER ENDING DECEMBER 31, 1899.

This report is distinguished by the fact that in its first month this Board commenced the collection of mortality statistics under the laws of 1899. A detailed report was made at the last regular meeting of the printing and sending out of blanks to Health Officers and deputies. The mortality reports for three months are now in, and for October and November have been published. Our monthly Bulletin has met with a flattering reception. This publication is sent to all our State Health Officers and deputies, to all State Boards of Health, to various publications, and to all who may apply for it. It is a matter of pride that many eminent physicians, professors and authors have written, asking that our Bulletin be regularly mailed to them. Among these are Dr. Prudeen, Dr. Sternberg, Professor Lindsley, Dr. Klebs, Dr. Knoff. Various societies and libraries have also asked to be put on the mailing list.

The State Board of Health of Iowa asked to be loaned the cuts of the tuberculosis cow, which picture appeared in the last Quarterly Bulletin. The Michigan Board of Health asked to be loaned

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the cut illustrating the cause of typhoid fever, and the Florida Board of Health asked to be loaned the cut of the four smallpox negroes which appeared in the November Bulletin.

In the collection of mortality reports, some unexpected difficulties have been met with. It was, of course, anticipated that errors would be made and that it would be found necessary to return certificates and records of death occasionally for correction. We were surprised, however, to discover that there were so many officers who had not taken the pains to inform themselves concerning the rules and directions of the State Board of Health. Sometimes certificates are received which are filled-out only in a very meager way. Sometimes the certificates of death alone are filled out, and the record is left untouched. Again, the decedent's name may be entirely omitted, or the certificate is not signed by any one. The blank on the back of the certificate is almost universally left unfilled and sometimes the county and town or city are left untouched. Every month it is necessary to ask for possibly two hundred corrections. When we remember that the first number of the Bulletin, published for October, contained full and explicit directions to Health Officers, it is to be wondered that this condition exists. It was expected that the continued return of incorrect blanks with letters, explaining and directing in the premises, would bring a lesser number of mistakes in the future. This has not been the experience, for in this, the third month of the statistical year, we have had more mistakes to correct than ever before. As a remedy, I propose that a card be printed in large type, containing full directions concerning the filling of certificates and records of death and the issuing of burial permits; that these cards be for the purpose of posting in every reporting station in the State. Accompanying the cards should proceed a letter to the County Health Officers, commanding that on their part they shall specially inform subordinates concerning the importance of following the directions exactly.

The superintendent of Oak Hill Cemetery, at Evansville, Ind., suggests that the next burial permits be equally as full as the certificates and records of death. This gentleman, Mr. William Halbrooks, says he is required to keep a register of the deaths in his cemetery and he must record everything which is on our certificate and record of death, which is more than appears on the burial per-

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mit. As the burial permit is the only document which reaches the superintendent, it is obvious why he makes the suggestion. I suggest that when we have the next lot of burial permits printed that they shall be improved as suggested.

VANDERBURGH COUNTY.

Dr. Pritchett, Health Officer of Vanderburgh County, returns to this office an original transit permit, issued by the Indianapolis Health Officer. This permit is imperfect in various particulars and especially that part called Form F, which should have been attached to the coffin box, but was not so attached. In a word, the work was done in a slipshod manner. Dr. Smith, Health Officer of Howard County, writes us that a certain undertaker of Kokomo had an experience with an undertaker of Indianapolis. The latter told him that Indianapolis undertakers paid no attention to the health law, and especially to the rules of the State Board of Health governing the shipment of dead bodies. He further said that the local Board of Health furnished the undertakers signed burial permits, allowing them to do as they pleased in the matter. On account of these letters the following letter was sent to Dr. Clark, Secretary of the City Board of Health:

Indianapolis, Ind., January 2, 1900.

Dr. E. D. Clark, City Sanitarian, City:

Dear Doctor—I inclose a birth return which by mistake has strayed into this office. Would it not be well to inform Dr. Hobbs that she is to report to you?

We have recently received several letters, the last one being from Alexandria, stating that undertakers who had visited Indanapolis found that Indianapolis members of their craft were supplied with burial permits already signed. Upon return to their towns they have demanded of their Health Officers like privileges, which, of course, they were denied.

We have informed officers at these points there is surely some mistake, and would like very much to receive a letter from you to place on file from which to corroborate our statements.

In one instance, an undertaker at Kokomo told the County Health Officer, Dr. Smith, that the undertakers of Indianapolis paid no attention whatever to the health law. This man was Collier, who you know defies the rules of the State Board of Health in regard to the transportation of dead bodies.

Have you informed the authorities of the Union Station concerning the shipment of corpses? We have not been receiving from railroads

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passing out of Indianapolis return sheets for corpse shipments, and we fear, therefore, that there has been some omission.

I am directed to make these inquiries by the State Board and to ask of you a written reply.

Hoping to hear from you so that I may be able to report at our next meeting, which will be held Friday, January 5, I am,

Very respectfully,

SECRETARY STATE BOARD OF HEALTH.

To this letter no reply has been received, although Dr. Clark is legally bound to reply, and especially is he bound by courtesy to make a reply.

To Mrs. Carter, Dr. Clark expressed great indignation at the receipt of this letter, and probably does not propose to answer it. At the same time he told her that the City Attorney had decided that the State Board of Health had no control whatever over the Indianapolis Board of Health. Upon receipt of this information, I wrote the following letter to the Attorney-General:

Indianapolis, Ind., January 5, 1900.

Attorney-General, City:

Dear Sir—The Secretary of the Indianapolis City Board of Health announces that the City Attorney has advised that on account of the special charter of the city of Indianapolis, the State Board of Health has no relation with or control over the Indianapolis Board of Health. Will you please give us your opinion on this subject? If the City Attorney is right our vital statistics law, which is bringing such good results to the State, will be badly crippled. Hoping for an early reply, I am,

Very respectfully,

SECRETARY STATE BOARD OF HEALTH.

To this the following reply was received:

Indianapolis, January 13, 1900.

Dr. J. N. Hurty, Secretary State Board of Health:

Dear Sir—I am in receipt of your letter asking if the State Board of Health has any relation with or control over the Indianapolis Board of Health.

It is true that the city of Indianapolis, while under a general law, is governed by an act of March 6, 1891, which applies to no other city in the State, and that Section 114 of that act creates a Board of Health and Charities, and, as amended by the act of March 14, 1899 (Acts 1899, p. 463), provides for the election of the Board of Health and Charities of the city, of a City Sanitarian, who "shall be Secretary and executive officer of said Board," and attend to the proper registration of births, deaths and marriages.

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The act also provides that "said sanitarian may be removed at any time for incompetency or neglect of duty." The act of February 7, 1899, to amend the act to establish a State Board of Health provides by Section 3 for an amendment of Section 9 of the original law, and, as amended, the law reads thus:

"It shall be the duty of the Secretaries of town and city Boards of Health to make reports of such facts and statistics as may be required under instructions from and in accordance with blanks furnished by the State Board to the Secretaries of the County Boards of Health in which such towns and City Boards of Health are subordinate."

It is also provided by the amendment to Section 10, in Section 4 of the act of 1899, that:

"No undertaker, sexton or other person shall bury any human body until he has received a permit to do so from the county, city or town Board of Health, or its duly appointed agent. No such permit shall be issued until there has been delivered to such boards or agent a certificate of death according to the form prescribed by the State Board of Health."

Section 8 of the original law, as amended by Section 2 of the act of 1899, provides as follows:

"The State Board of Health shall have power to remove at any time, any county, city or town Health Officer for intemperance, failure to collect vital statistics, obey rules and by-laws, keep records, make reports or answer letters of inquiry of said State Board concerning the health of the people."

It is perfectly clear that the amended act to establish a State Board of Health applies to all cities and towns throughout the State, under whatever statute incorporated, and that it is the duty of the City Sanitarian of Indianapolis, as Secretary of the Board of Health and Charities of that city, to report vital statistics under instructions from and in accordance with blanks furnished by the State Board of Health to the Secretary of the Marion County Board of Health, and the City Sanitarian is also prohibited, as are all other Health Officers, from issuing a burial permit until there has been delivered to the Board of Health and Charities or its duly authorized agent, a certificate of death, according to the form prescribed by the State Board of Health.

There is absolutely nothing inconsistent between these provisions of the act of 1899 and the provisions of the city charter of Indianapolis on the subject of health.

It would certainly be a most extraordinary thing for the General Assembly of Indiana to create a general law for the return of vital statistics throughout the State, and exempt from its provisions the most important city in the State.

I have the honor to be,

Very truly yours,

ATTORNEY-GENERAL.

I submit this whole matter for adjustment to the Board.

Resolved, That the Secretary is hereby instructed to communicate with the City Sanitarian of Indianapolis, furnishing him a

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copy of all correspondence received upon the question, and that the said Sanitarian be respectfully requested to make an early reply to the communication setting forth such information, if in his possession, as will enable the State Board of Health to proceed intelligently in reference to the apparent irregularities. If the said City Sanitarian fails or refuses to communicate and answer questions satisfactorily, the Attorney-General be requested to proceed as the law directs in the premises.

That part of the annual report for the Board year of 1898-99 which is addressed to the Governor was promptly written, submitted to the President for his criticism and approval and was filed, as the law commands, by December 1, with the Governor. The collected statistics for this annual report are now ready and the matter describing and fully setting forth the work done by the Board for the year is also ready, but is waiting to be properly arranged before presentation to the printer.

The visits made by the Secretary during November and December were as follows:

November 20, account of smallpox. This visit was made in response to telephone messages from the President of the Allen County Board of Health and in answer to two telegrams received respectively from the Health Officer of the county and the Mayor of Ft. Wayne. The cases which were suspected of being smallpox were located about twenty miles east of Ft. Wayne, on the Ohio border. Five cases were found, the disease having been introduced from Ohio.

The apparent reason for having the Secretary visit was to settle the question as to whether the cases were smallpox or not. The county officer, Dr. Proegler, felt well assured of the fact, but as is usual in county districts his diagnosis was doubted and there were found physicians who were ready to call the disease chickenpox. The work of the Secretary consisted in confirming the diagnosis and approving the very excellent sanitary conduct of the situation.

Spencer, Owen County, was visited November 28, to attend the Owen County Farmers' Institute and to lecture to the farmers upon the subject of sanitation and the work of the State Board of Health. The meeting was held in the Christian Church. There was a large audience, the house being well filled. Many questions

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concerning the work of the State Health Department were asked and a vote of thanks returned by the Farmer's Institute.

December 5. I got on the cars to visit Brookville, in Franklin County, to deliver a sanitary lecture before the Franklin County Farmers' Institute, the same that was given at Spencer. The Indianapolis train was late at Valley Junction two hours on account of an accident near Batesville; I therefore missed connection to Brookville and was compelled to go on to Cincinnati, where I stayed all night, returning the next morning.

On December 21 I was called to Anderson on account of an outbreak of smallpox. The object of the visit was to make a positive and legal diagnosis, for the newspapers were declaring the disease did not exist, but the local Health Officer and also the Madison County Health Officer were positive in their conclusions. Still the people seemed to doubt them. Nine cases of smallpox were found all in one family, the disease having been borne on the person of James Dent from Arkansas. He returned to his father's house while in pustular stage. He had been traveling on the cars and in public conveyances while in an infectious condition. His father and his mother and all his brothers and his sisters promptly broke out with the disease within sixteen days after his return. The diagnosis being confirmed, the sanitary precautions were continued.

On December 26 I again visited Anderson because of the great commotion raised by the smallpox and the blatant contention of various persons that no smallpox existed. I met with the Town Board, the Mayor being in the Chair, and advised them to pass an order directing their local officer to impose rigid quarantine in every case of infectious disease and further empowering him to make such expenditures as might seem necessary, or which might be proper in his judgment.

Both the health and food rules have been printed and copies herewith are presented.

In accordance with the resolution passed at our last regular meeting directing the Secretary to bring in a full account of the visits made during the period for which there was no appropriation, I herewith present said account:

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July 17—Greensburg, account schoolhouse.

July 20—New Ross, account of drainage for the town and to inspect the new schoolhouse for the trustee.

July 28—Martinsville, to advise with the Town Board on account of sewers.

August 1—Alexandria, to advise with the city authorities on account of sewers.

August 3—Brownsburg, account of unsanitary schoolhouse.

August 6—Bluffton, account special meeting of Health Officers of Wells County, and account of epidemic of dysentery at Liberty Center.

August 21—Greenfield, account of strawboard pollution of Brandywine Creek.

September 18—Sheridan, to confer with the Town Board upon the subject of drainage.

September 25—Lebanon, to advise with Town Board in regard to sewers and with the School Board in regard to the schools.

September 26—Clarks Hill, account of unsanitary schoolhouse.

September 28—Evansville, on account of Brownsburg schoolhouse case in court.

September 30—Danville, account of Brownsburg schoolhouse case in court.

October 2—Lafayette, to attend court in the matter of the Clarks Hill schoolhouse.

October 4—Spiceland, to confer with the Township Trustee and Advisory Board concerning necessity of a new schoolhouse.

October 9—Franklin, account of smallpox.

October 12—Franklin, account of smallpox.

Full typewritten accounts of all these visits were presented at the last meeting and accepted and now form a part of the transactions of that meeting and appear on the records of the same. A full itemized account of all the expenses with receipts, is presented:

July 17, Greensburg, account schoolhouse—	
Breakfast	$0 50
Railroad fare, round trip	2 70
Dinner	50
July 20, New Ross, account sanitary complaint of postmaster and account new schoolhouse—	
Railroad fare	2 00
Breakfast	50
Dinner	50
July 28, Martinsville, account sewers—	
Railroad fare	1 80
Breakfast	50
Dinner	50

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August 1 Alexandria, account sewers—

Railroad fare	$2 75
Breakfast	50
Dinner	50
Supper	70

August 3, Brownsburg, account schoolhouse—

Breakfast	50
Railroad fare	80

August 6, Bluffton, account meeting of Health Officers of Wells County, and account dysentery at Liberty Center—

Railroad fare	'2 85
Breakfast	50
Hotel	4 00
'Bus	25
Railroad fare home	2 85
Harry Bishop	12 95

August 21, Greenfield—

Railroad fare	1 10
Supper	75

September 18, Sheridan, account diphtheria—

Railroad fare paid by citizens.	
Breakfast	50
Dinner	50

September 25, Lebanon, account sewers—

Railroad fare, round trip	1 70
Dinner	50

September 26, Clarks Hill, account schoolhouse—

Supper, bed, breakfast	1 50
Railroad fare to Lafayette	1 90
Dinner	50
Railroad fare, Lafayette home	1 90

September 28, Danville, account schoolhouse at Brownsburg—

Dinner on train	1 00
Railroad fare, round trip	1 20

September 30, Danville—

Breakfast	50
Railroad fare, round trip	1 20

October 2, Lafayette, account court in matter of Clark's Hill schoolhouse—

Railroad fare, round trip	3 70
Dinner on train	1 00

October 4, Spiceland, account schoolhouse—

Railroad fare, Dunreith and return	2 05
Breakfast	50

October 9, Franklin, account smallpox—

Railroad fare, round trip	1 05
Supper	70

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October 12, account smallpox—

Railroad fare, round trip	$1 05
Supper	70
Expressage, last year	14 00
Total	$78 15

I recommend as follows: That a rule be passed ordering, whenever smallpox appears at any point, that it is the duty of the officer of the town or city in which it occurs to immediately report the same to the State Board of Health. When a case appears in the county, remote from any city or town, then it shall be the duty of the County Health Officer to immediately report the fact.

I recommend that a memorial letter from this Board be sent to the Governor, advising him of the necessity that exists for a laboratory of hygiene.

Bulletins, pamphlets and leaflets received for quarter ending December 31, 1899:

Bulletins—	
Health Department, San Francisco, Cal	3
Bulletins North Carolina Board of Health	3
Quarterly Report of Minnesota State Board of Health	1
Public Health Reports	11
Ohio Sanitary Bulletin	1
Iowa Health Bulletins	2
Monthly Bulletins, Connecticut State Board of Health	3
Department of Health, city of Chicago	2
Michigan Monthly Bulletin of Vital Statistics	1
Monthly Bulletins, New York	3
Department of Health, city of New York	4
U. S. Department of Agriculture, Farmers' Bulletins	3
U. S. Department of Agriculture, Cattle Transportation	2
Santiago de Chile	1
Treasury Department, Washington	3
Washington, "Yellow Fever"	1
Miscellaneous	4
Pamphlets—	
Monthly Reports of City of Denver, Colo	3
Board of Health of City of Rochester	4
Monthly Reports of Department of Health, city of Buffalo	3
U. S. Department of Agriculture, Illinois Section	3
Leaflets—	
Board of Health, Ottumwa, Iowa	3
Health Department of Dubuque, Iowa	2
City of Portland, Me	3
Vital Statistics of Evansville, Ind	4
Monthly Report of Ontario	1
Health in Michigan	16

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Dr. Foster, Uniontown, reports that several ignorant women in his neighborhood practice midwifery. He says they take pay for their services, have no licenses, and do not make reports of births. This condition probably exists in every locality, and I suggest that an order be issued to officers to search out such practitioners of midwifery and warn them, and if necessary fight against them.

The following letter was received from Mr. J. N. Frist, Secretary Embalmers' Examining Board:

To the State Board of Health of Indiana:

Gentlemen—The Embalmers' Examining Board appointed by your Honorable Board beg to report that evidence of a most positive nature has reached us that a certain Health Officer in the city of Indianapolis has signed and issued, in blank, to an undertaker in this city of Indianapolis, permits for the transportation of dead bodies by the common carriers, and that said undertaker is not in possession of any certificate of competency or license issued by your Honorable Board. Further, said Health Officer has signed in blank and issued to said undertaker permits for the burial of dead bodies, contrary to the statute in such cases provided, and further, that the railroads operating in and out of said city of Indianapolis have received and transported bodies, not accompanied by permits properly filled out, and not accompanied by affidavit of an embalmer certified by your Board, evidence of which is in your hands, to the city of Evansville, Ind. That said Health Officer is Dr. Clark, the Secretary of the Board of Health of Indianapolis, or of the Board of Health of Marion County.

J. N. FRIST,
Secretary Emb. Ex. Board for State Board of Health.

Indianapolis, Ind., January 11, 1900.

Resolved, That this Board will recognize the Embalmers' certificate issued by the State Board of Health of the State of Illinois, and we hereby recognize the action of said Board in granting a like favor.

Approved.

Whereas, The Secretary of the State Board of Health made certain visits as herein set forth and incurred an expense of $78.15; and,

Whereas, The appropriation for said work has been exhausted; and,

Whereas, The State Board of Health recognizes the value of said sanitary worth; therefore, be it

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Resolved, That the State Board of Health hereby recommend to the State Auditor that if there be any legal way whereby the Secretary can be reimbursed that said reimbursement be made.

Adjourned.

Approved April 6, 1900.

T. HENRY DAVIS, *President.*

J. N. HURTY, *Secretary.*

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SPECIAL MEETING.

OFFICE INDIANA STATE BOARD OF HEALTH,
Indianapolis, January 22, 1900.

Present: Drs. Davis, Laughlin, Jameson, Hurty and Forrest.

Secretary made the following report.

On Saturday, January 13, I noticed in the Indianapolis Journal a dispatch from Clay City, evidently sent by a correspondent, as follows:

SCOURGE OF CHICKENPOX.

[Special to the Indianapolis Journal.]

Clay City, Ind., January 12.—The scourge of chickenpox which began here early in the fall continues, increasing in virulence. Many of the patients become completely covered with the pustules, and the head and neck are so swollen as to make the patient unrecognizable. There have been at least three hundred cases, many of them much resembling smallpox. Some of the physicians say it is apt to go on till it becomes as bad as smallpox. No fatalities have occurred, but there have been several narrow escapes.

Feeling confident the disease was smallpox, I immediately telephoned to Dr. F. B. McCullough, Health Officer of Clay County at Brazil, asking him to investigate the matter thoroughly, and he telephoned to Clay City and received in return a letter stating the disease was not smallpox, but was unquestionably chickenpox, and this letter was signed by Drs. Modesitt, Freed and Wolf. On Sunday, January 14, Dr. McCullough telegraphed me: "No smallpox at Clay City; chickenpox only." Later in the day he telephoned me the facts concerning the receipt of the letter signed by the three physicians. Feeling certain there was a mistake, I left that night and arrived at Clay City Monday morning about 10 o'clock. I called upon Dr. Modesitt, introduced myself and told him my fears and asked to see some of the cases. We went to see Dr.

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Wolf, and the description given both by Drs. Modesitt and Wolf convinced me the cases were smallpox, and then we started out to make visits. The first patient called upon was Miss Atta Duncan, 21 years of age. She had never been vaccinated and had never had chickenpox. By examination, I found she had suffered from a pronounced prodromal period of three days, having in that time, fever, headache, disturbances of digestion, backache and general malais. Following this was a popular eruption, appearing almost wholly upon the face, wrists and ankles. These papules lasted, according to her testimony, about fifteen hours and then turned into blisters. It was at this stage when this visit was made. The vesicles were evidently those of smallpox and the appearance of the papules was further evidence, as was also the three days' prodromal period. There was every sympton of smallpox, chickenpox being contradicted at every point. Both the physicians differed with me in the diagnosis, and we then started to see Mrs. Hannah Smith, whom Dr. Wolf declared had simple chickenpox. Dr. Wolf did not accompany us to the Smith house, but claimed that he had some urgent calls and must attend to them. Mrs. Smith was never vaccinated, but had had the chickenpox n her youth. She was the mother of four children and all of them had had the chickenpox.

Mrs. Smith had a slight rigor Thursday, January 14, followed with slight fever, pains in the head and back, and ached all over. Eruption appeared Saturday morning in the form of distinct papules, according to her description. At this point, fever and aches departed and the papules in about eighteen hours turned into vesicles. It was at this stage I saw her and decided it was a straight case of mild smallpox.

From here, with Dr. Modesitt, I visited the family of Mr. George Burkhardt. There were nine in the family and none vaccinated except the father. The mother told me she was confident the disease was not chickenpox, because she was familiar with chickenpox, having seen it over and over again, and had so told the physicians. Monie Burkhardt, aged nineteen, according to her own account and that of her father and mother, had a distinct and pronounced prodromal period of three days, every symptom of the onset of smallpox being present. She broke out first with papules, which in twenty hours turned to vesicles and then to pustules. She had secondary fever, and there were some confluent places

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upon her body. The disease was unquestionably and plainly semi-confluent smallpox. When I saw her, she was in the 12th day and the crusts were coming away freely. Blanche Burkhardt, aged eleven years, history exactly as above only more severe. She said she was "one solid cake of scab." The disease was confluent upon many points upon her body, notably one place upon the left ankle on the inside, one half as large as my hand where the crust would come away in one solid piece. These girls were scratching and shaking crusts from them so that they fell like flakes of bran. Blanche and Monie both suffered from delirium for two days, and their mother said they were swollen out of all possibility of recognition. Maud Burkhardt, twenty years of age, was in her twentieth day, but presented in every particular the history of smallpox, but had not had it nearly so severe as her two sisters. Clara Burkhardt, aged fourteen, presented a complete history of mild smallpox. Myrtle Burkhardt, twenty-two, had had it very severely, for the marks were very plain and had affected the true skin as in the instances of her sisters Monie, Blanche and Maud. Desquamation was past, however, and only the raw livid scars were to be seen. Myrtle Burkhardt, aged sixteen, was nursing Mrs. Smith, and at that place I saw her; she, without question, had suffered from a light attack. Mrs. Burkhardt described symptoms which told plainly of a severe onset of smallpox, but following the prodromal the lesions were few and not severe. She, however, was quite sick, although sitting up.

Dr. Modesitt left me very precipitately and said he must hurry home. I found afterward there were many reasons to believe that he had gone to consult with Dr. Wolf. On my way to the hotel I met Mr. Ward, editor of the Clay City Reporter, and he told me of a case across the street and proposed we visit the same. The patient was Mrs. W. H. Cook. She was just entering the pustular stage of smallpox, with not a symptom of the disease missing.

I found upon inquiry that probably the first case of the disease was brought to Clay City by Herbert Wiltsie, a youth of about nine years. He visited in the city of Washington the last week of September, attending there a street fair, and returning to Clay City early in October. In just two weeks, according to his mother's account, he took sick, had a chill, was followed with fever, headache, stomachache, backache, and this continued for three days. Dr.

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Wolf attended him and declared the trouble to be simply biliousness. At the end of three days he broke out with papules, complaining the morning they were found that the atmosphere had bitten him badly during the night. His mother told me she examined his face and found him still broken out and at first thought they were mosquito bites, but when she found them all over his body she knew there must be some disease. These mosquito bites were described to me and answered the description of smallpox papules. They turned into vesicles in twenty-four hours and afterward every one of them became pustules, with a red zone surrounding them. The child had never been vaccinated, and the father and mother both took the disease, but they had been vaccinated in their youth. They were scarcely sick, and broke out very slightly. Upon the streets of Clay City I saw several cases of unquestionable smallpox, in the vesicular and also in the pustular stage.

The young children from the Burkhardt family, who had had it lightly, and were still in the pustular stage, with four or five pustules upon their waists, were attending school. There was in progress a protracted meeting, and, with Dr. Modesitt, I visited the place and told the minister the meeting must be dismissed in order to prevent the aggregation of the people. I was told by Dr. Modesitt and by several citizens that they had attended the meetings and had seen people in the audience in the pustular stage, which we now know to be unquestoinably smallpox. There was to be a theatrical performance at Clay City that night, which was forbidden, and the manager was advised to get out of town as quickly as he could. This he did, together with his troupe. The schools were ordered closed and the teachers were ordered to tell their pupils they must be vaccinated and they must stay at home. In the evening, after supper, I met the Town Board, two of the members only being present. The whole situation was placed before them fully and completely, and their duties under the law pointed out An ordinance was drawn up, declaring that smallpox was present in the town and ordaining that every person having it should be quarantined by the Health Officer and any deputies which he might appoint; that disinfection should be practiced at all houses which were infected and that vaccination should be performed free by the Health Officer and his deputies to all who were too poor to pay for it. An emergency and penalty clause was added. With the

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Health Officer, after this meeting, I went to the telegraph office and ordered of Cook & Bell, of Terre Haute, a supply of formaldehyde and vaccine points. At the same time, I sent a message to the Governor of the State and also to the Indianapolis Journal, sending the same as an official announcement of the situation. This message read: "Scores cases smallpox at Clay City. Mistaken for chickenpox. All precautions taken." I was warranted in saying scores of cases, because all the doctors said they had them by the dozens, and the citizens with whom I talked said "this disease" was prevailing on every hand and that some cases in the country had been very severe and people had nearly died. One gentleman, whose name was Mr. Keller, who was a member of the County Council, told me that he had himself suffered from the disease and been delirious for two days and scabs as large as butter saucers had come away. On Tuesday morning, January 16, I went to Brazil, having previously telegraphed Dr. McCullough, the disease was not chickenpox, but was plainly smallpox and for him to call the County Board together to meet me. I arrived at Brazil at 11:30, and immediately went to the courthouse and found the County Board had just adjourned. The three members, however, were still in the building and were called together. I told them the simple story just as above reported, and told the County Board of Health its duty under the law, stating clearly where the law could be found. One of the members spoke up and said he thought in his opinion that there was nothing in the cases being smallpox. He had had the disease, and also his wife and his children, and they had not lost over a day for each one. He did not believe it was smallpox, and did not think it was necessary to do anything in the premises, and intimated that I, as Health Officer, was desirous of working up an excitement that I might earn money. I asked him where he graduated and the extent of his past medical training. He said he had never had any medical training, but that he was going on common sense. I then asked him how common sense could guide one without knowledge, which raised a slight laugh among the crowd in the room. Standing before the Board the second time, I again officially notified them of the existence of smallpox and of their duty, recommending that they immediately issue an order to their Health Officer, empowering him to quarantine every person in the county that had the disease and to appoint

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deputies to inspect every school district, for it had been reported to me that there was probably not a single school district in the county which had not been invaded by "this eruptive disorder." On account of the departure of trains, I left at this point and arrived at Indianapolis at 2:30 p. m. on Tuesday, January 16. While on the cars, I purchased an Indianapolis Journal which had a dispatch from Clay City of a very sensational nature, containing much that was untrue. I afterward asked the reporter of the Journal where he got that stuff, and he told me that he had taken my telegram and another one from Clay City and made it up, assuming that the precautions would be taken, such as he had detailed. As he stated that the town was under strict quarantine, and as such precautions were not taken, this is mentioned as one of the misstatements of the article. The Wednesday morning papers at Clay City, Brazil and other places in Clay County, also the Terre Haute papers, contained a great deal of abuse because I was able to diagnose this disease and also promptly took the proper methods for its suppression. All manner of utterances were attributed to me, none of which will be found true upon close investigation. I think the reason the people were so disturbed and so excited in this matter was because they did not understand the situation. It is in evidence that even the Indianapolis people together with the management of the newspapers were more inclined to believe the diagnosis of the local doctors than my own, although none of the local doctors claim to have had any experience with smallpox. This is, of course, because they did not know and understand, and the matter is to be regretted solely because it retards the enforcement of those measures which are necessary to prevent the spread of the disease to uninfected parts of the community. On Thursday, January 18, I received a telephone message from Dr. Modesitt, saying that he was Health Officer at Clay City, declaring that he was putting forth every effort to fulfill the orders of the Council issued on the night mentioned above. A second report of like character was received Friday, January 19; also on Saturday, January 20. Sunday no report was received, but on Monday, January 22, the following report was received and taken down by the stenographer:

January 22.—Have seen all the doctors this morning except Dr. Vandivier; three new cases reported since Sunday morning. Have eight deputies aiding in sustaining quarantine. Have three men stationed at

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outskirts of town to prevent suspected persons entering or leaving. Dr. Modesitt informed Dr. Cox, Health Officer of Owen County, that the western portion of his county was probably highly infected and our men were stationed at outskirts of town to keep such infected people away. We feel positive we are getting matters in better condition through our efforts. Our greatest trouble is to pacify the people under quarantine and keep them in a state of mind which will make them satisfied with the conditions. We are putting forth every effort to stop the plague and the public is now standing behind and supporting us satisfactorily.

The number of cases are not yet known, but they are probably more than one hundred.

Ordered by the State Board of Health: The County Board of Health of Clay County is ordered to immediately take the following action to stay the smallpox now prevailing in Clay City, to wit:

The Clay County Board of Health shall order the Health Officer of the county to inspect personally, or by deputy, every school district; search out those who are affected with smallpox, or who may have been exposed to the disease or afflicted with the disease now epidemic at Clay City and other points, which have been declared by the State Board of Health to be smallpox. The order shall be that every person so afflicted shall be rigidly quarantined until all danger of communicating the disease has passed, and the persons who have been exposed shall be quarantined for fourteen days; and all infected houses and furnishings and wearing apparel shall be disinfected according to the rules of the State Board of Health, and general vaccination recommended.

Unanimously passed.

Ordered: The Secretary of this Board shall proceed to Clay County, meet the County Board of Health, and endeavor to persuade it to immediately take measures to suppress the epidemic of smallpox now existent in Clay County. In case of refusal or failure the Secretary shall finally serve the above order of the State Board of Health upon the Clay County Board of Health.

If the Clay County Board of Health fails or refuses to obey the final order of the State Board of Health, then the Secretary shall notify the District Prosecutor of said failure and request that he proceed as in such cases provided by law.

Ordered: The Secretary shall purchase fresh, reliable vaccine virus and distribute the same at his discretion.

Have the Attorney-General suggest a general plan of quarantine as against any town or community.

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Outline the plan as much as possible to apply to any community, and have the plan on file.

The Board met the Governor in his parlor at 4 p. m. The Deputy Attorney-General was present. Dr. Davis gave an account of the situation and suggested that a man be employed and supplied with vaccine to proceed to Clay City and other infected points, and vaccinate free of charge all who would apply.

The Governor refused to do this on the ground that if one district was helped in this way by the State the demand would be general and this could not be met. It was finally decided that in instances where the officials or people of a community requested an expert diagnostician's services from the State Board, one should be sent, and also that virus should be purchased to be used at the discretion of the State Health Officers.

Adjourned.

Approved April 6, 1900.

T. HENRY DAVIS, *President.*

J. N. HURTY, *Secretary.*

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SECOND QUARTER.

OFFICE INDIANA STATE BOARD OF HEALTH,

Indianapolis, April 6, 1900.

Regular quarterly meeting for quarter ending March 31, 1900.

Present: Drs. Davis, Forrest, Laughlin and Hurty.

President Davis called the meeting to order at 3:30 p. m., and the Board proceeded immediately to consider the charges against Dr. J. F. Ginn, Health Officer of Elwood, and to hear Dr. Ginn's defense.

Following are all the documents in the case:

Dr. J. F. Ginn, Elwood, Ind.

Elwood, Ind., January 20, 1900.

To the Honorable Board of Health of the State of Indiana:

Gentlemen—We, the undersigned citizens of the city of Elwood, respectfully petition your honorable body for the removal of Mr. J. F. Ginn, M. D., the present Secretary of the Board of Health of the city of Elwood, for the following grievances:

First. For failure to obey rules and by-laws.

Second. For incompetency.

Third. For unprofessional conduct toward his fellow-practitioners.

Fourth. For altering and amending or suggesting change of treatment of attending physicans.

Fifth. For failure to compel retention of members of families in quarantined districts.

Signed: W. H. Hopenrath, M. D.; C. N. Suttner, M. D.; M. L. Ploughe, M. D.; A. W. Tobias, M. D.; John Q. Garner; Philip C. Stockhardt, M. D.; C. C. Cotton; S. W. Edwin; F. F. Mendenhall, M. D.: T. O. Armfield, M. D.; G. V. Newcomer, M. D.

Elwood, Ind., January 20, 1900.

Dr. Hurty. Secretary State Board of Health, Indianapolis, Ind.:

Dear Sir—I have been shown a petition signed by a number of the physicans of this city; also a letter written by Dr. J. H. Millikan, pray-

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ing the removal of Dr. J. F. Ginn. I believe the complaints set forth to be true, and would recommend the adoption of the suggestions therein contained.

Respectfully yours,

J. D. ARMFIELD.

Indianapolis, Ind., February 8, 1900.

Dr. W. H. Hopenrath, and Others, Elwood, Ind.:

Dear Gentlemen—To make the situation perfectly clear, I will quote the law as follows:

"The State Board of Health shall have power to remove at any time any county, city or town Health Officer for intemperance, failure to collect vital statistics, obey rules and by-laws, keep records, make reports or answer letters of inquiry of said State Board concerning the health of the people."

From this you will see exactly to what we must confine ourselves. If, therefore, you can make a charge and sustain it under any one of the heads mentioned in the law, the same will be valid and may be acted upon. We regret that any Health Officer has come between any physician and his patient.

The rules of the State Board of Health command Health Officers never, except under most extraordinary circumstances, to interfere in the slightest degree between physicians and patients. As soon as we hear from you with full sworn evidence sustaining any one charge, action will be taken.

Very truly yours,

J. N. HURTY, Secretary.

Elwood, Ind., February 16, 1900.

J. N. Hurty, M. D., Indianapolis, Ind.:

Dear Doctor—Since you have returned the petition, I see the first charge, which you say is sufficient for the removal of Dr. Ginn, pertains to a "failure to obey rules and by-laws" of the State Board of Health. We have been advised that the manner in which Dr. Ginn has caused so much trouble between the physicians and their patients would come under that charge, as stated in your last letter to me, as follows:

"The rules of the State Board of Health command Health Officers never, except under most extraordinary circumstances, to interfere in the slightest degree between physicans and patients."

Inclosed you will find three affidavits. Some of the physicians, Drs. Newcomer, Cotton and Ploughe, and Dr. Suttner, have been treated in a similar manner but decline to make affidavits, if these will be sufficient.

From the fact that all of my cases have resulted in dissatisfaction through the interference of Dr. Ginn in one way or another, it must follow that there has been a failure to obey rules and by-laws.

What applies in one case will apply in all. Consequently, I will give as specific evidence an account of only one case, as follows:

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Charge Number One—Exhibition.

In March, 1899, I was treating in the family of John Yohe, on Main street, between Eighth and Ninth streets, in Elwood, Ind., two cases of laryngeal diphtheria. The cases were reported as soon as the disease was recognized and the house carded by Dr. Ginn. At this juncture he took the liberty to see the children and to state to Mr. Yohe that the cases were being neglected and not treated in a way that would meet with his approval.

This occurred on March 24, 1899. Here he suggested a line of treatment and recommended another physician (Dr. C. N. Suttner) to take my place. There had already been a consultant called, but his speech to the anxious family resulted in Dr. Suttner being called and subsequently to his dismissal. The effect was unsatisfactory to both Dr. Suttner and myself. In these same cases, which were of a very malignant type, a quarantine was not maintained.

Mr. Yohe, who runs a delivery wagon connected with a meat market, was permitted to go to and from his place of business during that time. What relation that bears to two or three cases of diphtheria that occurred immediately after and just across the street from Yohe's is only conjecture.

W. H. HOPENRATH,
JOHN P. YOHE.

State of Indiana, Madison County, ss:

Subscribed and sworn to before me, a notary public in and for the county and State above named, this 12th day of February, 1900.

ELI P. MYERS,
Notary Public.

My commission expires June 25, 1903.

To the Honorable, State Board of Health of the State of Indiana:

In the matter of the charges preferred against J. F. Ginn, M. D., Secretary of the Department of Public Health of the city of Elwood, Madison County, Ind.

Statement of J. F. Ginn.

First. Except as hereinafter admitted, confessed or explained, I deny each and every matter, fact and thing contained in the charges filed against me and in the affidavits filed in support thereof.

Second. During all the time and times referred to I was and still am the Secretary of the Department of Public Health of the city of Elwood, Madison County, State of Indiana, and have been and I still am engaged in the discharge of the duties of such office. I have never used the office for the purpose of annoying, oppressing or injuring any person whomsoever. I have never been guilty of "unprofessional conduct" toward any physicans of the city of Elwood, and I believe that the charges filed against me are inspired by personal malice and ill feeling, and not by any desire to improve the service of the Department of Public Health of the city of Elwood aforesaid.

Third. I am charged with misconduct in three cases: "Yohe," "Dupont," and "Parsley." Considering them in their order, the facts are:

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Charge Number One—Exhibition.

On the afternoon of March 24, 1899, I was informed by telephone that at John Yohe's residence, No. 806 West Main street, a case of "membranous croup" had been discovered. I went there immediately and found that it was a case of "malignant diphtheria." Besides members of the Yohe family there were present Mrs. Metzker and Mrs. Richards, and I was then told that the case had been treated for some days as "catarrhal croup." I quarantined the whole family, and instructed Mrs. Richards and Mrs. Metzker not to go away from the premises without changing their clothing and thoroughly disinfecting themselves, as the case was the very worst form of diphtheria.

Those present were very much surprised when I told them the facts of the case, and Mrs. Metzker asked me what I thought of the "antitoxine treatment, and who could use it. I replied that I favored its use and that any physican could use it.

I neither saw nor asked to see the medicines used by the attending physicans, nor did I criticise the treatment of the attending physicians; nor did I recommend any physican to the family. I then instructed the family fully as to the isolation, and gave them a diphtheria circular and carded the house.

The next day I learned that Dr. C. N. Suttner had adminstered antitoxine treatment to both children the previous evening, and one of the children died the same evening (March 25, 1899); the other recovered.

I visited the house, or its immediate neighborhood, daily during the continuance of quarantine, and I never heard till these charges were made, that it was not maintained and respected.

Charge Number One—Exhibition.

To the Honorable, the State Board of Health of the State of Indiana:

In the matter of the charge against J. F. Ginn, M. D., Health Officer of the city of Elwood, Madison County, Indiana.

State of Indiana, County of Madison, ss:

Jennie Metzker swears that she was, on the 24th day of March, 1899, present at the John Yohe house, on Main street, between Eighth and Ninth streets, in the city of Elwood, Indiana, wherein there were two cases of "laryngeal diphtheria;" and upon said 24th day of March, 1899, Dr. J. F. Ginn was called in and carded said house, and notified Mr. John Yohe and family not to go away from said Yohe house so long as said diphtheria was contained therein, and that said house was quarantined by said Dr. Ginn. And I further swear that I was present at all the meetings that took place with the Yohe family on said day above mentioned at said house, between Dr. Ginn and the Yohe family, and that Dr. Ginn did not state to Mr. John Yohe or any one else that the cases were being neglected and not treated in any way to meet his (Dr. Ginn's) approval.

And I further state from my own personal knowledge that Dr. Suttner was called in by the Yohe family and from no suggestion made by Dr.

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Ginn, and Dr. Ginn did not recommend any other physican or suggest any line of treatment, and as to the three cases of diphtheria just across the street from the Yohe family, in which I live, the Yohe family and this family which was sick with said diphtheria did not associate at all. The case of diphtheria in the house in which I live, I believe, is due from old clothing bought and worn by the family that lived upstairs at that time in the house in which I live. This was in the month of April, 1899.

JENNIE METZKER.

State of Indiana, Madison County, ss:

Subscribed and sworn to before me, this 13th day of March, 1900.

JOHN B. McINTYRE,
Notary Public.

My commission expires April 28, 1901.

Elwood, Ind., April 5, 1900.

Dr. J. N. Hurty, Indianapolis, Ind.:

Dear Doctor—In reference to the two affidavits in reference to Dr. Ginn's duty in one case of diphtheria in the family of one Yohe, would say that I adminstered antitoxine in consultation with Dr. Hopenrath, and was never discharged.

In the case of one Parsley (diphtheria) gave antitoxine after Dr. Millikan had refused a consultation and after he left the case, although demanding a consultation previously. I gave the serum for "humanity's sake," so says Dr. Nourse, being present.

Too much politics.

Yours fraternally,

C. N. SUTTNER.

To the Honorable, the State Board of Health of the State of Indiana:

In the matter of the charges preferred against J. F. Ginn, M. D., Secretary of the Board of Health of the city of Elwood, Ind.

State of Indiana, Madison County, ss:

J. F. Ginn, being duly sworn, on oath says: I am the identical person mentioned in the foregoing entitled proceeding. On the 22d day of March, 1900, at the city of Elwood, Madison County, Ind., I had a conversation with John P. Yohe, and during that conversation said John P. Yohe denied that he signed, subscribed and swore to the affidavit filed in this matter purporting to have been signed and sworn to by him before Eli P. Myers, on or about the 12th day of February, 1900.

J. F. GINN.

Subscribed and sworn to before me this 4th day of April, 1900.

JOHN B. McINTYRE,
Notary Public, Madison County, State of Indiana.

My commission expires April 28, 1901.

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To the Honorable, the State Board of Health of the State of Indiana:

In the matter of the charges against J. F. Ginn, M. D., Health Officer of the city of Elwood, Madison County, Ind.

State of Indiana, County of Madison, ss:

Mary J. Richards swears that she was on the 24th day of March, 1899, present at the John Yohe house, on Main street, between Eighth and Ninth streets, in the city of Elwood, Indiana, wherein there were two cases of "laryngeal diphtheria," and upon said 24th day of March, 1899, Dr. J. F. Ginn was called in and carded the house and notified Mr. John Yohe and family not to go away from said Yohe house so long as said diphtheria was contained therein, and that said house was quarantined by said Dr. Ginn. And I further swear that I was present at all the conversation that took place with and between the said Yohe family and Dr. Ginn, at said above named date at said above named house, and that Dr. Ginn did not state to John Yohe or any one else that the cases were being neglected and (not) treated in any way to meet his (Dr. Ginn's) approval, and I further state that Dr. Ginn did not at said above named date suggest any line of treatment, and he (Dr. Ginn) did not recommend any other physician to said Yohe family.

MARY J. RICHARDS.

State of Indiana, Madison County, ss:

Subscribed and sworn to before me this 13th day of March, 1900.

JOHN B. McINTYRE,
Notary Public.

My commission expires April 28, 1901.

Charge Number One—Exhibit.

Oral statement taken by stenographer:

This case was treated for several days as catarrhal croup. The impression of the friends was that it was similar to bronchitis or pneumonia, and when I got the 'phone message that it was membranous croup, I went out there and these two ladies invited me to come in. Mrs. Metzker asked me about the antitoxine. I always say that I approve of its use, and she asked me why the other physicians did not use it. I told her they did, and that I did not know of a physician in the city that did not use it. She said that Dr. Hopenrath had left the case. "Well," I says, "that little child is dying and this other one will die, but the cases are not mine, but it is my duty to card the house." I did. I did not get the report of this until the next day. I called Dr. Hopenrath up immediately and asked for a contagious disease report. He sent it by mail.

This man was not a butcher, he was simply an assistant to a butcher; that is, he hauled from the slaughter-house to the butcher shop, and I do not think he did, and know he did not, with my knowledge or consent, go to and from the house while the disease was present. I do not think he did, for the butcher asked me if I could not liberate the man, as they were a poor family, and to let the husband out, and I told him just as soon as I see there is no further development of the disease.

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Charge Number Two.

Elwood, Ind., March 10, 1900.

Dr. Hurty, Secretary State Board of Health:

Dear Doctor—I herein charge Dr. Ginn with failure to obey rules and by-laws of the State Board of Health, and cite the following cases:

On January 9, 1900, was called to see a child of Sherman and Lucy Parsley. Later in the day Dr. Ginn called, during my absence, and without my knowledge or consent and without being called by the family. He went in (being Health Officer he was admitted), examined the case, caused the family to think the child was worse than it really was, suggested a change of treatment, and made arrangements with another doctor to have a treatment that met his (Dr. Ginn's) approval instituted instead of mine, and otherwise meddled, altogether out of line of duty as Health Officer, causing me in self-defense to retire from the case.

J. H. MILLIKAN.

State of Indiana, Madison County, ss:

Subscribed and sworn to before me, this the 10th day of February, 1900.

JOSEPH W. KNOTT,
Notary Public.

My commission expires June 25, 1902.

Answer to Charge Number Two.

The facts in the Parsley case are:

January —, 1900, Dr. J. H. Millikan telephoned me from the "Calloway" block, saying that he thought he had discovered a bad case of diphtheria in the building, and if I could come over directly he would wait for me. I went over at once and met him in the hallway. Together we went into the room where the child was and examined the case. I left J. H. Millikan there and went to the high school building and sent two sisters of the sick child home. I directed the superintendent of the school to thoroughly disinfect the desks of these children. I went to a drug store and procured a quantity of formaldehyde and carbolic acid and gave instructions as to how the janitor was to use it. This was in the afternoon.

In the afternoon I thoroughly disinfected the hall and stairway, and while engaged in this work I was asked to come in and explain more fully about disinfecting. Mrs. Parsley was very anxious about her sick child's condition. The doctor had left him lying in a stupor in the forenoon, and at this time, afternoon, he was comatose and cyanotic. Observing this I went to Dr. J. H. Millikan's office then and explained the boy's condition to him.

While there, I asked Dr. J. H. Millikan his opinion of antitoxine. He told me that he was not greatly impressed with it, but that this would be a good case to try it on; that if I would procure it he would use it. I made arrangements for its use and called him, J. H. Millikan, by 'phone, when he said that he would first see the mother and then let me know.

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About 4:30 p. m. Dr. C. N. Suttner called and asked me to bring the antitoxine of a potency to the house where he said he and Dr. J. H. Millikan would meet me. I did so. Dr. Millikan then announced his intention of withdrawing from the case. All the doctors present—Nourse, of Alexandria; Stockhardt, Suttner and myself of Elwood—remonstrated with him and most kindly and emphatically asked him to reconsider his determination, without avail. The mother of the sick boy and also his two sisters asked him not to leave the case, but their requests did not change the doctor's purpose.

After J. H. Millikan left the house C. N. Suttner, M. D., Drs. Nourse, Stockhardt and myself examined the boy's case, and decided the case warranted the use of antitoxine, which C. N. Suttner then adminstered, with the result that the child recovered.

I did not criticise Dr. J. H. Millikan's conduct or treatment of the case. The other Parsley children escaped the infection.

State of Indiana, Madison County, ss:

J. F. Ginn, being duly sworn, on oath says that he is the identical person referred to in the foregoing statement; that he has read the same and knows the contents thereof; that the same is true to his own knowledge.

J. F. GINN.

Subscribed and sworn to before me this 22d day of March, 1900.

JOHN B. McINTYRE,
Notary Public.

My commission expires April 28, 1901.

Charge Number One—Exhibit.

Oral statement taken by stenographer:

Supplementing this, as I said to you, I furnished the antitoxine, furnished the formaldehyde, and happened to be in the house, showing the lady how to do the spraying and the proportion of formaldehyde mixed with the water, and she made the remark while I was doing this: "Doctor, I can't get Leo wakened up, and ever since Dr. Millikan left we can't arouse him." I noticed the appearance of the child, but did not go closer to him than the door of his room, and this was about 1:30. As quick as I got through sprinkling, I went to Dr. Millikan's office, without going near the child; never said a single word to the mother about the doctor or his treatment, but went over to the doctor's office and called him out, as there were friends in his room, and said: "Doctor, that child is sinking." He says, "That does not surprise me, for I gave the mother an unfavorable answer this morning, and told them when I was up there that I had no hope for the child at all." I said: "What do you think about using antitoxine?" He said: "We are opposed to it." "Do you not think it cheaper than a funeral? I will get it if you feel disposed to use it."

I told him I would go to see the Mayor first, and if I could get it I would telephone, and I did telephone him, and he said he would go to

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see the mother. He had already made arrangements with Dr. Suttner to administer it, and I met him at the drug store just as I came out. He went to the mother and told her they were going to use it, and he steps into the adjoining room of another physician and came out just as we went to the head of the stairs. He got his antitoxine syringe and Dr. Millikan says: "Won't retain this case." Well, Dr. Suttner talked with him and reasoned with him, told him that we believed that it was necessary, but he would not change his mind. Dr. Nourse, of Alexandria, came and Dr. Suttner explained the situation to him, and he and also the mother and two sisters asked him not to leave the case; that they thought this a case where it should be used. Still he would not have it.

Still we remonstrated, but he left the case, and after he had gone we examined the case and decided that the case warranted the use of antitoxine which Dr. Suttner then administered, with the result that the child recovered.

Dr. Nourse says, "If Dr. Hurty was here and you stood back on your duty like that he would reprove you pretty severely. My advice to you is to order now the administration of antitoxine." The next morning the child was sitting up asking for its breakfast, when I was there at 8 o'clock, and from the free use and attention, the other little girls did not take it.

Answer to Charge Number Two.

To the Honorable, the State Board of Health of the State of Indiana:

In the matter of the charge preferred against Dr. J. F. Ginn, M. D., Health Officer of the city of Elwood, Madison County, Indiana.

State of Indiana, Madison County, ss:

Lucy Parsley, being first duly sworn; do depose and say that the facts of the case are that Leo Parsley, my son, was on the 9th day of January, 1900, very sick with diphtheria. This was in the morning of the above named date. I called in Dr. Millikan. When he arrived at my house, he said all hopes were gone; that he did not think he could save my child. He suggested to me that he, Dr. Millikan, would use or have it used by another doctor, "antitoxine," and later on in the afternoon he brought with him Dr. Suttner, who administered the antitoxine, with the result that my child recovered. In no way did Dr. J. F. Ginn officiously meddle in the case, nor was Dr. Ginn guilty of any unprofessional conduct. And I positively swear that Dr. Ginn did not suggest any treatment or change of treatment, and he (Dr. Ginn) did not make any arrangements for another doctor with me or any of my family. But Dr. J. H. Millikan suggested the change of treatment and asked me if I had any objections if he used or had it used, the medicine called antitoxine. I told him no, to do anything he could to save my child, and he had Dr. Suttner to use the medicine, and he (Dr. Millikan) retired from the case.

LUCY PARSLEY.

State of Indiana, Madison County, ss:

Subscribed and sworn to before me this 13th day of March, 1900.

JOHN B. McINTYRE,
Notary Public.

My commission expires April 28, 1901.

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Charge Number Three.

On afternoon of January 16, 1900, was called to see a child of August Dupont. The next morning, the child being worse, I decided upon a change of treatment and called Dr. W. H. Hopenrath. We together decided upon a course of treatment. Later the child died. Dr. Ginn went there later in the capacity of Health Officer, asked to see the medicine. and told the family that the last-named treatment ought to have been used sooner, etc., and tried to cause dissatisfaction on the part of the family with the attending physician by insinuating neglect or ignorance on part of the attending physician.

J. H. MILLIKAN,
W. H. HOPENRATH.

State of Indiana, Madison County, ss:

Subscribed and sworn to before me, Joseph W. Knott, a notary public for the county of Madison, State of Indiana, this the 10th day of February, 1900.

JOSEPH W. KNOTT,
Notary Public.

My commission expires June 25, 1902.

Answer to Charge Number Three.

The facts in the Dupont case are:

Wednesday, January 16, 1900, a telephone call informed me that there was a case of malignant membranous croup at the house of August Dupont, Fourth and D streets, city of Elwood. I went to the house, carded it, gave the family a diphtheria circular, and instructed the family fully as to quarantine. Drs. J. H. Millikan and W. H. Hopenrath were there when I arrived, and I left them there when I went away. About an hour later I was informed by the undertaker that the child was dead. I gave him very full instructions, particularly to use an abundance of formaldehyde in the rooms.

The next day, Thursday, I went to the house and thoroughly disinfected it. While there I was informed that Dr. W. H. Hopenrath had seen the child the previous Monday, and had then said that the case was diphtheria, and that he saw the case again on Tuesday and at noon (Tuesday) called in Dr. J. H. Millikan, who came again on Wednesday morning.

While at the house I did not see nor ask to see the medicines used by the attending physicans and I did not criticise their treatment of the case.

Charge Number Three—Exhibit.

To the Honorable, the State Board of Health of the State of Indiana:

In the matter of the charges against J. F. Ginn, M. D., Health Officer of the city of Elwood, Madison County, Indiana.

State of Indiana, Madison County, ss:

August Dupont and Rosa Dupont, his wife, being duly sworn, on oath say each for themselves, and not one for the other:

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"J. F. Ginn, Health Officer of the city of Elwood, Ind., did not find fault with the treatment of Eva Dupont, our child, deceased, on the part of the attending physicians, and did not say that the medicines were not properly and timely used, and Dr. Ginn did not ask either of us to see the medicines. He did not say or insinuate that the attending physicians were ignorant or negligent in their treatment of the case. I do not know of any misconduct on the part of Dr. J. F. Ginn, toward J. H. Millikan and W. H. Hopenrath, attending physicans.

"AUGUST DUPONT,
"ROSA DUPONT."

Subscribed and sworn to before me this 13th day of March, 1900.

JOHN B. McINTYRE,
Notary Public.

My commission expires April 28, 1901.

Charge Number Three—Exhibit.

Oral statement taken by stenographer:

When I got to the house I saw Dr. Millikan and Dr. Hopenrath preparing the child for the administration of antitoxine. I would not have gone to the house, but I could not make the father understand what I meant, so I went, carded the house and gave them a diphtheria circular. I stood in the door and beckoned to Dr. Millikan to know if there were any English-speaking people in the house. The wife came and I explained what was meant by quarantine—that no one must leave or go into the house. I left the doctors there, and had scarcely been gone an hour when the undertaker telephoned me that the child was dead. I went to the undertaker and fully instructed him not to allow a public funeral.

The next day, Thursday, I took out the material and thoroughly disinfected the house, and all this time there had never been a word said about the physicians' treatment.

A month afterward I was passing the house and they called me in about another matter, and the mother said: "Doctor, why was not antitoxine used on my child sooner?" I said: "I do not know; I had nothing to do with it. I recommended its use, I use it myself, and I think there are more cases saved by it than any other means."

I asked the mother when her child was first discovered sick. She said it was on Sunday, and on Monday the child was no better. "Dr. Hopenrath called at my house and pronounced it diphtheria. I asked him what he thought of the case, and he said it was a bad one." They sent for Dr. Millikan at noon Tuesday. He pronounced the case unfavorable immediately and said that the treatment that Dr. Hopenrath was giving was for a croupous condition and not to give any more of it, and he came back again before daylight on Wednesday morning, and after he went home Dr. Hopenrath was there administering antitoxine when I got there, as I said.

J. F. GINN.

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Dr. J. F. Ginn, Elwood, Ind.:

Dear Doctor—I inclose herewith certain correspondence and papers which you will see are accusations against you by brother physicians at Elwood.

These accusations have been formally presented and are sworn to before a notary. As heretofore said, the State Board of Health is now compelled to take cognizance of the situation and you are formally summoned to appear before the Board at its next regular meeting, Friday, April 6, 1900, in the rooms of the State Board of Health in the Capitol Building, at Indianapolis, there to answer to the charges which are lodged against you, as per copies of the same inclosed.

Very truly yours,

SECRETARY STATE BOARD OF HEALTH.

Elwood, Ind., March 5, 1900.

J. N. Hurty, Secretary State Board of Health, Indianapolis, Ind.:

Dear Doctor—I acknowledge the receipt of your summons to appear before your Board on April 6, 1900; also the copies of the charges and affidavits filed on Saturday evening last. I called your office this morning (at 5) by 'phone and was informed that you were out of the city.

Please advise me upon your return the usual practice of the Board:

First. If oral or written answers to the charges are desired.

Second. If affidavits are desired with those answers.

Third. If it is customary or necessary to have an attorney accompany one before the Board.

Above or any additional information given will be fully appreciated.

Believe me to be most fraternally your obedient servant.

J. F. GINN,
Secretary Board of Health, City of Elwood.

Indianapolis, Ind., March 17, 1900.

Dr. J. F. Ginn, Elwood, Ind.:

Dear Doctor—This is the first opportunity I have had to reply to your favor of March 5. The State Board of Health has never yet held a trial under the new law, and therefore we are yet to find out something ourselves. You ask if written or oral answers to the charges are desired. To this I would say, you would probably do well to send to the Board a lawyer's brief, wherein you answer fully and completely the charges which are preferred against you, or perhaps it would be better for you to take each charge and make your own answer in full, make affidavit, and then have your attorney send a brief in addition to the answers. According to the wording of the law, you will have to appear, for it is so commanded. By reading the law, you will also discover it states as follows: "Removal shall not be made until five days' notice of charge or charges against such Health Officer shall have been mailed to him, stating a time and place for hearing by the State Board of Health, not less than one week later than the time of sending such notice to such Health Officer."

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This notice has now been given you, which you acknowledge, and I think it would be best for you to appear before us upon the date named without an attorney.

Your accusers have also been informed, of course; that must be according to law.

Hoping all will turn out well, I am,

Very respectfully yours,

SECRETARY STATE BOARD OF HEALTH.

Elwood, Ind., March 19, 1900.

Secretary State Board of Health, Indianapolis, Ind.:

Dear Doctor—Your very esteemed letter of the 17th inst. at hand today, and I appreciate very much the tone of it, and I will assure you, Doctor, that I will waive all technicalities before your Board. I only desire an honest and impartial hearing. I only desire to answer the charges satisfactorily to the Board, which I am positive I can do. I have my case already prepared exactly as you have suggested in your letter and I have not the slightest fear as to the final result; and, Doctor, I would beg that the Board call my case as soon as I reach the city or State Building (say about 10:30 a. m.), upon the arrival of the L. E. & W. train, so that I could return home the same evening; and also any other correspondence that may affect me as officer, I would desire a copy of the same, so that I might be prepared to meet them.

I shall be pleased to have an hour's consultation with you and the Board on some sanitary matters that I have put off writing to you of.

Hoping to hear from you if necessary and fully expecting to see you on April 6, 1900, I remain,

Very truly yours,

J. F. GINN.

ACCUSED BRIEF.

To the Honorable, the State Board of Health of the State of Indiana:

In the matter of the charges preferred against J. F. Ginn, M. D., Secretary of the Board of Health of the city of Elwood, Madison County, Ind.

The charges filed against the accused ask that he be deprived of office on the following grounds:

1. Failure to obey rules and by-laws (of the State Board of Health).
2. For incompetency.
3. For unprofessional conduct toward his fellow-practitioners.
4. For altering, amending or suggesting changes or treatment of attending physicians.
5. For failure to compel retention of members of quarantined districts.

The law, Sec. 2, Ch. XVI, Acts of 1899, State of Indiana, gives the State Board of Health the power to remove a Health Officer of a city in the following cases, and no other, viz.:

"Intemperance, failure to collect statistics, obey rules and by-laws, keep records, make reports and answer letters of inquiry of said State Board of Health concerning the health of the people."

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It will be seen at a glance that charges Nos. 2, 3 and 4 are not within the acts for which the State Board of Health may remove, unless they are in some way contained within some rules and by-laws, and I have not seen anything covering the point.

Charges Nos. 1 and 5 remain to be investigated, as they do come within the things that this Board has power to dismiss the accused for, if it find from the evidence that he is guilty.

In the absence of any statement of any particular rule which the accusers think the accused has violated, if their accusations are to be investigated, this Board has the undertaking on its hands of reading all the rules and by-laws it has made, and then reading all the evidence submitted by the accusers and spelling out, if it can, what specific acts the accused is guilty of, if any. Now, I submit that such a course is neither fair, professional or worthy of the distinguished members of the medical profession attempting to build up a higher standard of efficiency than that which they claim the accused exercised toward them. What, for instance, would they think of a public prosecutor who would hurl at them the acts of the Legislature for any one year and say, as they do, this is the whole law, you have violated it in some particular, we don't care on the part of the State to specify what, and proceed to introduce evidence to prove the accused guilty? Yet that is precisely what, with the exception of charge No. 5, they have done in this case.

The only active duties the charges show in the kind of disease—diphtheria—mentioned, required on the part of the Secretary of the City Board of Health is to placard the house, and there is nothing in the charges to show that this was not done. This duty falls under Rule No. 12.

This local Board of Health is nowhere held responsible if persons do violate a quarantine (see Rules Nos. 5, 6, 7, 8 and 9). There is nothing in the charges to show that J. F. Ginn knew that a quarantine was being violated in any case. Rule No. 10 does not apply for the reason that in each case an attending physician was present, and none of the charges made by the accusers state that the cases were in any particular being neglected to the knowledge of the Secretary of the Board of Health. Hence, no cause under that rule is shown by the charges as to why the accused should be placed on trial. The accused is, therefore, as a matter of law, upon the evidence entitled to be discharged from trial and the defendants accused.

Counsel, John B. McIntyre, moves that he be so discharged for failure, on the part of his accusers, to make out any case against him on their own showing. The motion should be granted.

But if the Honorable the State Board of Health should conclude to investigate this case on the merits and demerits, as presented in the affidavits, both pro and con, outside of the law, counsel for the accused believes that the evidence and the weight of the evidence is clearly in favor of the accused still.

First. A careful examination of all the affidavits accusing, with the exception of the John P. Yohe affidavit, shows that the matters alleged were upon "common report," and that the affidavits had no personal knowledge of what they affirmed, inasmuch as all the affidavits state that the acts of which they complain were not done by the accused in

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their presence, but in their absence. Therefore, the facts are unsworn, though the affidavits may affirm that they believe the reports that came to them are true. Still, in such cases, where the best evidence is not given and no excuse is volunteered as to why they did not have the affidavits of the persons of whom the accused asked to see the medicines and to whom he made the suggestions, if to any, that the cases were being neglected, the parties may absolutely refuse to say that Dr. J. F. Ginn asked them, or any one else so far as they know as to what kind of medicines were used. The very names, even, of the parties giving the sensational information to the accusers are withheld. Clearly, according to the most elementary rules of the admission of evidence, the "padding" contained in the accusers' affidavits is not evidence, and should be absolutely excluded. Anything the affidavits state as coming personally within their own knowledge is admissible.

But the Yohe affidavit does not state that the accused, J. F. Ginn, permitted Yohe, after being exposed to the disease, to roam at will among his fellow-citizens. I think it should state that fact and should connect J. F. Ginn directly with that neglect; for anything that appears the violation of quarantine may have been done with the knowledge and consent of the affiant physician, accusing the defendant, J. F. Ginn. Clearly, under the rules and by-laws of the State Board of Health, he is directly chargeable with the duty of reporting any violation of a quarantine. Yet he wholly fails to charge the accused with such knowledge. If Mr. Yohe wishes it to be understood that he violated a rule of the State Board of Health, for which he may be punished, in failing to obey quarantine, I have no objection to his being so understood; but when his attention was called to a copy of his affidavit, he appeared to be a very uncomfortable individual, and absolutely denies that he understood that he was making oaths to any facts at all like those set out in the copy shown him: the copy being the identical copy furnished by the State Board of Health to the accused, J. F. Ginn. He further stated that he had no complaint to make against J. F. Ginn, and was not aware of any misconduct of his in the case and did not so intend to charge.

It is unnecessary to call the Board's attention to the matters contained in the affidavits submitted on the part of the accused. Suffice it to say that he submits the affidavits of the Duponts, the Parsleys and of persons disinterested who were present at the Yohe residence, and every statement submitted by the accusers is fully, succinctly and directly denied. Whom will this Board believe, the interested parties or the disinterested parties? Suppose you throw out of the case all evidence given by the accusers on the one hand, and on the other all evidence given by the accused personally, and try this case on the statements of John Yohe (for he is not an accuser, and he is the only person who testifies for the accusers except themselves), and on the other hand try it on the evidence of Mr. and Mrs. Dupont, Lucy Parsley, Mrs. Richards and Mrs. Metzker; to what conclusion alone can this Board arrive?

But if you take into further consideration the further fact that W. H. Hopenrath, forgetting the professional courtesy he claims that J. F. Ginn, accused, should exercise toward him, attacked and savagely beat, all in violation of law, the said J. F. Ginn, as he actually did, you can pretty

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nearly, reading between the lines, see that these charges are not made for the purpose of elevating the standard of efficiency of the Board of Health of the city of Elwood, but are inspired expressly and solely by malice and ill will.

The State Board of Health has no power to consider an appeal from the action of the Common Council of the city of Elwood in electing J. F. Ginn to the office of Health Officer of the city of Elwood. Presumably the Common Council knew of the friction existing between the two doctors, and had they elected W. H. Hopenrath, J. F. Ginn would have no call to ask them why; their discretion in such a matter can not be inquired into. It may be "unprofessional" for any physician to suggest when a diphtheria patient is sinking and growing steadily worse and has reached the stage where the patient is comatose and syanotic, to call on the attending physician at his office and suggest a change of treatment, and also suggest it to the members of the family. But a physician, who "in self-defense" would refuse a suggestion offering, perhaps, to the sinking patient his only chance for life, and "retire" from the case, is, according to the ideas of the briefer, unworthy to ever be called by the name of "physician," but his right to practice should be taken from him as a "brute" and a "butcher," for according to the writer's idea his license was not given to him that he be permitted to toy with human life.

From the evidence it appears that J. F. Ginn took the children of a "diphtheria" patient out of school in one case; instructed the undertaker about conducting the funeral in another; placarded in all; disinfected and quarantined and took all reasonable precautions to prevent the spread of the disease. Perhaps his energetic and efficient measures "provoked" the wrath of the attending physicians, but the Board will look in vain for any evidence in their affidavits that they ever once, in anything, asked for the aid of the Board of Health in any instance to secure the prompt, full and efficient co-operation of the Secretary of the Board of Health of the city of Elwood. If this is the fact, and that it is I only ask you to look for yourselves, where, for the benefit of the public service of the Board of Health of the city of Elwood, do the accusers in this case come in?

A word in closing as to the purpose of the law creating the Board of Health of the State of Indiana, including its subordinate machinery, the local Boards of Health.

Under the evidence, the various doctors diagnosed the various cases as laryngeal diphtheria, membranous croup, croupous, plain diphtheria, etc. But call the cases what you will, about half the patients died. The disease was clearly communicable—(adverting to another matter outside of the evidence in this case, I believe the State Board of Health has had some experience with the names the attending physicians "called" the diseases with which patients were dying, but I ask you, in all soberness, did you ever have any idea that you ought to resign your official positions because you did not please certain attending physicians? Rather, didn't you do your duty under the law as you understood it, and in spite of the fact that smallpox was called "itch," "rash," and "chickenpox," establish at the point of the "shotgun" as strict a quarantine as you could, and didn't you stamp out the epidemic threatening, not only the inhabitants of this State but those of neighboring States as well?)—and I

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submit that the evidence adduced shows that the accused exercised but the powers of the law creating the office conferred upon him, and none others, for all of which he should not be punished.

Respectfully submitted,

JOHN B. McINTYRE,
Attorney for J. F. Ginn.

Dr. Ginn having been heard, he was excused, the President promising the Board would fully consider the evidence and act upon it at a very early day.

Minutes of the last regular and special meeting of January 22 were read and approved.

The Secretary's report for the quarter was then read, as follows:

SECRETARY'S REPORT.

For the period the mortality statistics have been collected, tabulated and published, together with an analysis for each month. The Bulletin is now firmly established, and we have had the honor of receiving many kind letters complimenting the publication and asking that the author's name be placed on the mailing list. Dr. T. Mitchell Prudden, Department of Pathology, Columbia University, N. Y., writes: "I should be glad to receive, for the purpose of illustration and instruction in this college, the Monthly Bulletin of the Indiana State Board of Health, on the establishment of which permit me to congratulate you."

City Government, a magazine published in New York, writes: "Please place us on your mailing list and permit us to congratulate the Indiana State Board of Health on account of its very excellent publication."

The Hartford Post, a daily at Hartford, Conn., asks to be favored with the Monthly Bulletin of the Indiana State Board of Health.

The correspondence has been quite heavy, 1,600 letters being received and as many written.

Visits made by the Secretary during the quarter are as follows:

January 14—Clay City, account smallpox.
January 25—Peru, account smallpox.
February 5—Brazil, account smallpox.
February 16—Lafayette, to advise with City Council in regard to smallpox.
February 23—Brookville, account sanitary lectures.
March 5—Washington, D. C., to attend National Food Congress.
March 21—Fountain City, account unsanitary schoolhouse.

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The reasons for and the results of these visits are hereafter set forth in detail.

PERU.

January 25—

On account of two urgent telephone messages from Drs. Kalbfleisch and Ridenour, of Peru, I visited that city January 25 to investigate some cases of eruptive disease. I found that all the cases were among children, not a single adult being affected. Further, they were plainly and unmistakably chickenpox. Eighteen cases in all were examined and not a single one of the patients was over twelve years of age. The physicians of Peru, however, not being familiar with smallpox, thought it a matter of simple prudence to be on the safe side. Their diagnosis had been quite correct, for without exception they all decided that they had to deal with chickenpox.

BRAZIL.

February 5—

On February 5 the Secretary went to Brazil according to the direction of the State Board of Health to deliver positive and specific orders to the Health Board of Clay County as to how it should manage the smallpox epidemic prevailing in said county. The order spoken of was the one passed at a special meeting of the Board January 26, 1900, and appears in the minutes of that meeting. When I called on the County Board but two were present, the third one being attacked with smallpox and could not attend the meeting. The Board's attorney was summoned and the order was thoroughly discussed in every particular. Before I left the two members present said they would act without delay in regard to the order and would obey its every command. I have learned incidentally that this was done. The Health Officer of the county, Dr. McCullough, has refused or neglected to make report upon this as also upon all other health matters in his county.

LAFAYETTE.

February 16—

In accordance with an invitation from the City Health Officer, Dr. Washburn Tilson, the Secretary visited this city on the evening of February 16 to consult with the City Council in re-

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gard to precautions necessary to prevent smallpox getting a hold in Lafayette. The health ordinance of Lafayette does not provide for a Board of Health and so the Council, according to the law, acts officio in that capacity. I addressed the Council, saying in effect that a pesthouse should be provided in which to receive, if occasion required, any person attacked with smallpox. It was further urged that an immediate order be passed commanding the City Health Officer to be on the alert and commanding all physicians to report without delay any eruptive disease which might come under their professional observation, in order that the same might be thoroughly investigated and no mistake made. Also that free vaccination of those who were too poor to pay for it be offered to the people, and that an official recommendation of vaccination be given by the Board of Health. Various questions were asked and such replies as judgment and knowledge dictate were returned. The Council that evening acted upon the advice offered.

BROOKVILLE.

February 23—

The Secretary visited Brookville February 23 in order to deliver a public lecture upon sanitation. The large public hall at Brookville was well filled with citizens. To them I endeavored to present a clear account of the health conditions of Indiana and how they could be bettered. Also gave an account of the work of the State Board of Health and the whole Health Department of the State. The papers of Brookville gave complimentary notices of the lecture, and one and all promised to do all they could to further the cause of sanitation in Indiana.

THE NATIONAL FOOD AND DRUG CONGRESS.

March 5—

The Secretary attended the Third Annual Meeting of the National Pure Food and Drug Congress at Washington, D. C., March 6, 7, 8, 9. This was in accordance with directions previously issued by the Board. The attendance was very large, every State in the Union being represented. On March 6 there was much committee work to attend to, and on the 7th the next session of the Congress was held. The members were welcomed by Hon. John

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B. Wright, Commissioner of the District. He was followed by an address by the Secretary of Agriculture. The President's address was then given, which was followed by the announcement of the Committee on Credentials and report of the Executive Committee. The Association then adjourned that the various State delegates might organize and present any suggestions they might have to the Congress. The second session was held at 8 p. m. The Committee on Credentials presented a report, followed by report of Committee on Nominations. An opportunity for the introduction of resolutions was here offered and met with numerous responses. Addresses were then given by Hon. Marriott Brosuis and Hon. Champ. Clark. The third session was held March 8. There were reports of officers, committees, much business was introduced, and addresses were given by Hon. Marcus A. Hanna, Hon. Wm. E. Mason and others.

The fourth session was held March 8 at 8 p. m. At this session there were many speeches delivered upon baking powder and oleomargarine. There were gentlemen present who advocated the use of alum baking powder, and there were others who opposed them. The same is to be said concerning pure butter and oleomargarine. The fourth session was held March 9 in the forenoon and was devoted to discussing the Brosius Bill, a copy of which is herewith appended. This bill had already been introduced into the House of Representatives on January 15, 1900. It was gone over in every particular, sentence by sentence, and finally approved as it stood. The Congress then adjourned, each person attending being a committee of one to wait upon his Congressmen and Senators in behalf of the Brosius Bill. The discussions concerning the necessity of pure food and drug legislation were long and at times were warm and energetic. Pretty nearly the whole field of foods was gone over and finally action was taken as above stated, when the Brosius Bill was adopted.

FOUNTAIN CITY.

March 21—

On account of several letters from citizens of Fountain City, the Secretary visited this town on March 21. The object of the visit was to inspect the schoolhouse from a sanitary point of view and to

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advise the people as to the proper procedure. I found the structure to be of brick with stone foundation. It was built in 1875. There was no cellar and the ground had never been drained. The building contained four rooms, heated by stoves and ventilated by windows and doors.

There was a vestibule, very narrow and cramped, with steep boxed stairways leading to the second floor. These stairways were without question too steep and hard to ascend, and for that reason were pronounced unsanitary, for children can not climb many times a day, year in and year out, such stairways without injury.

The primary room was 27x30x14 feet. It contained thirty-nine students, and therefore affords almost three hundred cubic feet to each pupil, which is ample space. The light was from two windows on the west and one window on the north and one on the south. The light enters at the rear and no fault appeared upon this score. Upon entering, it was plain to the nose that the air was bad and the same could not be changed with windows without producing drafts. This room had a steel ceiling because the plaster ceiling had fallen the year before. Blackboards were of a dull black. There had been considerable sickness during the winter in this room, fifteen students being absent at one time. There had been one death from inflammation of the lungs. The teacher of this room was sick for one month with lung and throat trouble. The desks were modern and satisfactory.

The intermediate room was 27x30x14 feet and contained forty students. The space per student was ample. The light was very satisfactory, being introduced by two windows from the rear, two on the north and two on the east. There had been much sickness in this room during the winter. The highest number being absent at one time on this account was seven. The sickness consisted of colds, throat trouble and grippe, and there was one typhoid death from this room. At the time of my visit there was much coughing, and upon examination I found some of the children with coated tongues. The desks were very satisfactory.

The grammar department was 21x30x14 feet, giving 220 cubic feet to each student, which is ample. The light was good, being from the rear and through two windows, one on the north and one on the south. The air was bad and there was considerable sickness in this room during the winter, twelve students being absent at one

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time. Complaints were of sore throats principally. The teacher was sick two weeks with sore throat.

The high school room was 27x30x14 feet, and contained thirty-two students. The cubic space per pupil was ample. It was lighted from the rear, which was on the west, and by one window on the north and one on the south. The light was very satisfactory. The desks were not modern, most of them being double and not of proper shape. The sickness of the high school was not as great during the winter as in the other rooms, only five being absent on account of sickness at one time. It was the general report of the teachers that on account of uneven warming and bad ventilation attendance was materially interfered with and much sickness was induced, the disease being of the throat and lungs and a kind of nervous indigestion. The walls of the building were cracked under every window. This can be plainly seen from the outside. The walls were out of plumb on the west, east and north sides. Inside cracks appeared above all the windows and in the ceilings of the rooms not having steel ceilings. On March 16 a large portion of the ceiling in the high school room fell, fortunately without striking any one. It was observed also that the ceiling was broken in the hall upstairs, large patches having fallen. The method of supplying water to the children was by means of tin cups and a bucket. The outhouses were very bad and condemned outright. The playgrounds were muddy and the children had no place except the sidewalks upon which to stand when they came out for recess.

The following letter was sent to the trustee upon my return from this visit:

Indianapolis, Ind., March 24, 1900.

Mr. J. O. Edgerton, Trustee, Fountain City, Ind.:

Dear Sir On March 2, 1900, I visited Fountain City and made a sanitary inspection of your schoolhouse. As a result of said inspection, permit me to call your attention to the following facts in relation to sanitation:

The building has a stone foundation with brick superstructure, but rests flat upon the ground, having no cellar underneath. All public buildings should without exception have beneath them dry cellars with cemented floors. The ground upon which the building stands should also be very carefully drained. Science has shown that unless these conditions exist "ground air," which is the air found in the interstices of the earth and which always contains gases of decomposition, finds its way into schoolrooms and produces conditions of ill health. This probably

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would seem to be a very small matter to those who have never investigated it or studied it, but small as it is, the same has caused hundreds of deaths through depressing the vitality of school children. The State Health Department unhesitatingly condemns any public building which is built flat upon the ground.

The rooms of the present building have high ceilings and are properly lighted, but they are not properly warmed and ventilated, as you know all your schoolhouses are warmed by stoves. This is an extravagance because it results in wasting a portion of the public money by preventing the proper application of the pupils and also because it induces ill health. Stoves occupy space which is valuable to pupils, and those pupils who sit near the stove are always rendered uncomfortable by too much heat, and those who sit away from the stove are rendered uncomfortable by cold and chill. Neither class can study and progress as it should, and hence it is that stoves bring about conditions of extravagance and waste. Firing stoves in schoolrooms makes noise and disturbs study and the classes, and this is a further waste of school money. We send our children to school to study, to learn and to progress. To surround them with conditions, even slight in their nature, which will prevent these ends, is of course extravagance as above stated. The worst feature, however, which attends the warming of schoolrooms by stoves is the fact that an uneven warmth imposes colds, coughs, catarrh and congestions upon the children.

The overwarmed pupil, sitting by the stove, on account of open pores and perspiration, is more liable to cold when it goes out, and the child away from the stove, on account of chill, is more liable to catch cold.

The ventilation of your schoolroom is by windows and doors, and this has been proven by actual experiment to be inimical to the health of the pupils. This is because it is perfectly impossible to furnish the pupils a sufficient amount of air, when the ventilation is by windows, without producing drafts, and between drafts and foul air there is little choice, both being productive of diseases of the air passages and all congestions. Foul air in the schoolroom produces sleepiness and dullness and lays the foundation for future diseases of the air passages. The most of our consumption, which disease hangs on us like a pall, slaying four thousand annually, is frequently induced through the foul air of a schoolroom. The child stands the foul air at the time, seemingly without harm, but in future life develops the awful consumption and dies. It thus happens that such schoolhouses as you have at Fountain City are veritable death-traps. Schoolhouses should be evenly warmed by an apparatus which takes pure air from the outside, warms it and introduces it into the room above the heads of the pupils. The bad air should be removed by foul-air flutes placed in the wall which will take the foul air from very close to the floor. The warming flutes which bring in the warm, pure air, and also the foul-air duct, must be of ample size to change the air in the room every fifteen minutes without variation of temperature and without draft. I noticed that the air in every one of your schoolrooms was foul and offensive. There was an odor to it and the children were dull in consequence. In one of the childen's rooms I examined three little girls and found all three of them suffering from fever and each had a

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severe cold. I have no doubt the foul air in the room had caused this illness in these children. Your teachers submitted their records and from the same it was discovered there had been a great number of absentees, caused by cold and lung and throat troubles. In the intermediate room many of the children were coughing and had hot foreheads with rapid pulses. It certainly is not Christian to surround children with conditions which produce ill health, and it certainly is a great extravagance to spend school money in such a way as to produce disease. The State Health Officer unhesitatingly condemns your school building as unsanitary and unfit in every way for school purposes. Another feature to which I must refer is the steep box stairway which leads to the upper floor. This stairway must be climbed several times a day by young people and is productive of much harm. Frequently heart muscles are strained and palpitation results. Then again great harm is done very frequently to young girls. Stairways should always be very easy of ascent and children should be allowed to go up the same slowly and deliberately. An occasional climbing of steep stairways may not be productive of any harm, but parents must remember that children are required to go up and down the steep stairways continually, several times a day, and this is a different matter from going up the same occasionally.

I noticed in your schoolhouse that children were supplied with drinking water from an ordinary bucket and tin cups. This is a nasty method of supplying drinking water. It is very possible (and it has happened hundreds of times) that children having diphtheria, scarlet fever or other contagious disease in their mouths have left their saliva upon the edges of the cups, and the same was transferred to other children more susceptible, who have acquired the disease in this way and died. A bucket filled with water for common drinking purposes is a very hotbed of filth. First, the bucket is left open to the air. Dust and all manner of objectionable matters may fall into the cups, although they are invisible to the naked eye, and the water may be further contaminated and polluted by saliva left on the edges of cups. The common drinking bucket and common drinking cup is one of the most ingenious methods which could be contrived for the transmission of a certain class of diseases. Physicians know of hundreds of cases of diphtheria and scarlet fever acquired from the common drinking cup, and, of course, deaths proceed therefrom. Drinking water should be supplied to children in such quantities and by means of small cups, so that the same will always be fresh, as from a pump, and will wash the cup thoroughly before the child drinks. A still better way is to have individual drinking cups, as is the case in numerous schools in Indiana.

I noticed that the outhouses to your schoolhouse were abominable. Parents certainly can not train up their children in decency and at the same time surround them with immoral and indecent conditions. You should by all means, provide the pupils with perfectly sanitary outhouses.

The conclusion of this whole matter is that Fountain City sadly needs a new schoolhouse, modern and sanitary in every respect. Ornament and beauty is also a point to be considered, for these forces uplift the soul, but a primary necessity is a sanitary building that the physical body may not be injured in any degree.

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Again I repeat, from a sanitary standpoint your schoolhouse is utterly condemned, and economy, morals, education and all the other forces which make for righteousness demand a new one. If your authorities conclude to build a new structure, they should by all means employ an architect of reputation and standing, and be sure to apply sufficient funds to secure the best conditions of health.

Very respectfully yours,

SECRETARY STATE BOARD OF HEALTH.

SMALLPOX.

At the special meeting of January 22 the smallpox situation for the quarter and to that date was fully given. This includes an account of the Clay City epidemic, the epidemic in the northern portion of Washington County, southern part of Vigo and northern part of Greene. Since then smallpox has steadily abated. The order of the Board to the Clay County Board of Health was served by the Secretary February 5, and a copy of said order is appended. Only two members of the Clay County Board were present; the third, Mr. David Keller, was absent because he had the smallpox. The attorney of the Board was present and advised immediate compliance with the order. I left with a promise from both members present that the order would be obeyed and executed to the letter. I have since learned this was done, although the Health Officer of the county, Dr. T. B. McCullough, has failed to report as he was asked to do. The result of the work appears in the fact that the number of cases steadily lessened until at this time only eight cases are known in Clay County. On account of backwardness of the Board of Health of Washington County, the same order as issued to Clay County was served by sending the same to the Health Officer, Dr. Mayfield, and having him present a copy to each member of his Board. This Board also immediately complied with the order and the work was very effective. Vigo, Owen, Greene, Scott and Posey County Boards of Health have been very active from the first in discovering smallpox. As a consequence the disease was promptly controlled except in Posey County, where it was necessary to meet daily importations from Kentucky. Even in this county the disease is now almost abolished. The total number of cases at the lowest estimate must have been not less than eighteen hundred. Only a fraction was reported, because most of them occurred in families which did not

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know what the disease was. Many physicians failed to report cases, sometimes through negligence and sometimes through ignorance of the character of of the disease. It is recommended that an order be passed by this Board directing that county officers shall proceed against all physicians who may be suspected of having failed to report cases of smallpox or other contagious or infectious diseases under their care. Dr. Mayfield, of Washington County, reports that only ninety-five cases were reported to him in his county, and he is certain that over three hundred actually occurred, and of this number a good number were attended by doctors.

This order was served by the Secretary in person at Brazil, February 5, 1900. The same was sent to Dr. Mayfield, of Washington County, with orders that he serve the same on the members of his own Board.

Whereas, Smallpox, a loathsome, deadly, infectious and contagious disease, exists in epidemic form in Clay County, Indiana, and

Whereas, The statute commands (Acts 1899, Chapter XVI, Section 8) it to be the duty of all county, city and town Boards of Health "to protect the public health by the removal of causes of diseases when known, and in all cases to take prompt action to arrest the spread of contagious and infectious diseases, to abate and remove nuisances dangerous to the public health as directed or approved by the State Board of Health, and perform such other duties as may from time to time be required of them by the State Board of Health pertaining to the health of the people," therefore, the Indiana State Board of Health orders—

Section 1. The Clay County Board of Health shall, within three days after this instrument is served upon each member of said Board, proceed as follows to arrest the spread of smallpox in Clay County: (1) A deputy County Health Officer, who shall be a physician capable of diagnosing smallpox, shall be appointed for each infected township. (2) It shall be the duty of said officers under the directions of the County Health Officer to make a house-to-house inspection of every house in their respective townships, and if any person is discovered to have an eruptive disease resembling smallpox, then such person and also all unvaccinated person or persons who have not had smallpox, whom it is reasonable to suppose have been exposed to smallpox, shall be placed in strict quarantine for a period of fourteen days; if, however, such exposed person will submit to vaccination, then at the discretion of the Health Officer quarantine may be excused to such person. (3) Any vaccinated or unvaccinated person who has had smallpox, who may be reasonably supposed to have infection upon his person, shall be disinfected as ordered by the Health Officer. (4) All infected houses shall be thoroughly disinfected at such times as the Health Officer may direct. (5) All Health Officers shall at all times keep themselves thoroughly disinfected.

Sec. 2. Health Officers shall be provided with pure glycerinated vaccine virus and shall be ordered to offer free vaccination to all who will

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accept vaccination, and officers shall be provided with an efficient disinfecting apparatus and with formaldehyde with which to perform disinfection, as laid down in the rules of the State Board of Health. Officers shall be ordered and empowered to purchase necessary supplies when required for quarantined persons, and an account of the same shall be carefully kept, and itemized bills shall be returned to the County Board of Health.

Sec. 3. All Health Officers shall have the common law powers of constables in matters pertaining to the public health and shall render weekly to the County Board of Health a full detailed account of what they have done.

Sec. 4. The County Board of Health shall immediately request the County Council to assemble and appropriate such sum of money as may seem necessary to meet the conditions necessary to suppress this epidemic.

Passed by the Indiana State Board of Health, January 22, 1900.

T. HENRY DAVIS,
President.

J. N. HURTY,
Secretary.

VISITS ORDERED.

During the quarter, owing to the prevalence of smallpox, it was impossible for the Secretary to make all the visits which were necessary, and therefore, according to the orders of the Board and with the permission of the Governor, Drs. Brayton, Ferguson and Collins were employed to visit the following places:

Dr. Ferguson, Brownstown, January 17.
Dr. Ferguson, Scottsburg, January 18.
Dr. Ferguson, Greencastle, January 22.
Dr. Ferguson, Campbellsburg, February 3.
Dr. Brayton, Peru, January 23.
Dr. Brayton, Monon, January 25.
Dr. Brayton, Terre Haute, February 1.
Dr. Collins, Clay City, January 27.

Full reports of these visits are appended in above order.

DR. FERGUSON'S REPORT.

Indianapolis, Ind,. January 17, 1900.

State Board of Health of Indiana, City:

Gentlemen—Acting under instructions I went to Brownstown, Sunday, January 14. In company with Dr. Keller, City Health Officer, I visited a suspected case of variola in the Falk & Pheifer house. The patient,

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Dawson Robbins, son of the proprietor, was found in the vesicular stage of smallpox, confluent on the face. Patient had visited Lesterville two weeks before he was taken sick and met his cousin, Miss Alice Gaytor, who was recovering from what her physician called an attack of chickenpox, her face being covered with crusts. Monday, the 8th, patient was taken with the prodromal symptoms, the papules appearing on the 10th. All members of the family and two maids in the hotel had been exposed. There were but few guests in the house, and these all escaped before the diagnosis was made, but as patient had been isolated by Dr. Keller there can be no danger from them. The hotel was promptely quarantined, a meeting of the Town Board called and effective measures taken to check the spread of the disease. Patient, Dawson Robbins, had never been vaccinated, and had the chickenpox when a child.

According to your instructions I went to Scottsburg, Tuesday, the 16th inst., and visited Dr. McClain, the County Health Officer. He informed me that to his knowledge there had been no cases of variola or chickenpox in Scott County. I found Mr. Silas Gaytor of Scottsburg, the father of Miss Alice Gaytor, from whom the Brownstown patient contracted the disease, and learned from him that there were many cases of what the physicians called chickenpox in Lesterville and Gibson Township. He informed me that his three daughters had had the disease, and that he had been traveling back and forth from the infected town. I procured a team and drove to Lesterville, Washington County. On my arrival I called on Mr. Lester, the proprietor of a general store and also the postmaster of the town. He told me he had had five cases in his own family, some of them not quite recovered as yet. He enumerated fifty-two cases of which he had personal knowledge, distributed over the township. While in the store three or four citzens of the town came in and told me that they had had the disease, and the incomplete desquamation of the scales bore ample testimony of the fact that they had suffered from smallpox.

Many of these people told me that they had had chickenpox in childhood, and from the severity of the recent attack had told the physicians that they thought it was smallpox. In company with Mr. Lester I visited a house and found a well-marked case of variola in an adult. Four other members of the household were present in various stages of desquamation. They told me here that the condition of the patient then sick was the same as that of all who had been ill. The first case in the town of Lesterville was that of a school child, John Hawn.

Respectfully submitted,

January 22, 1900. CHAS. E. FERGUSON, M. D.

State Board of Health, Indianapolis, Ind.:

Gentlemen—Following your instructions, I went to Greencastle to-day and met Dr. Bence, Health Officer of Putnam County. With him I drove to Martin, twelve miles north of Greencastle. The suspected patient was found suffering from a mild case of variola. Prodromal symptoms were well marked, but the eruption is of modified type. I found it impossible to trace the source of the infection. Dr. Bence has everything well in hand.

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Unfortunately the patient had attended a party in the neighborhood while in the eruptive stage. Dr. Bence has located all who were present and had them vaccinated.

Yours truly,

C. E. FERGUSON, M. D.

Indianapolis, Ind., January 25, 1900.

Secretary State Board of Health, City:

Dear Doctor—As you directed, I visited suspected case of variola in family of Alexandria Mayberry, Tyrone, Hendricks County, April 14. and found his daughter recovering from what appeared to be chickenpox.

She visited Ingalls two weeks before the eruption appeared, where she came in contact with what was called chickenpox.

Yours truly,

C. E. FERGUSON, M. D.

Indianapolis, Ind., January 23, 1900.

Secretary State Board of Health, City:

Dear Doctor—In accordance with your instructions I went to Alexandria, arriving there at 1:15 p. m. I found Dr. Hall, County Health Officer, and with him visited the suspected case of variola. I found the patient, Albert Greiner, in the eruptive stage of smallpox. Prodromal symptoms were well marked, but the eruption is of the obertine or modified type.

Dr. Hall had carefully isolated the patient and had a guard on duty. The patient is in a business block upstairs, but fortunately there are no other tenants on the floor. There is no vacant house in the town that can be used as a pesthouse.

Attending physician pronounced the case "pustular syphillis."

Yours truly,

C. E. FERGUSON, M. D.

Indianapolis, Ind., February 3, 1900.

State Board of Health, Indiana:

Gentlemen—I left Indianapolis February 1 for Louisville, where I took the train for Campbellsburg, Friday morning. At Campbellsburg I met Dr. Paynter and with him drove over the northwestern part of Washington County. There are no cases of smallpox in Campbellsburg, the recent case being fully two miles distant in the country.

I examined Miss Oma Brown, the suspected case of variola, and found her in a well-advanced stage of desquamation. She gave one of the most complete descriptions of the prodromal symptoms of smallpox that I have ever heard from a layman. From her present condition and the prodromal symptoms, together with the account given by Dr. Paynter, who visited her, I have no hesitancy in pronouncing it a case of variola.

I found another patient, Miss Jennie Russell, who presents the same clinical and historical picture as does the case of Miss Brown.

One other suspected case was examined, a girl of fourteen years, who had suffered from an eruptive disease, whose history and present condi-

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tion would not justify a diagnosis. Her two brothers had suffered from an eruptive disease some two or three weeks before, the prodromal symptoms in one case being well marked.

There had evidently been an epidemic of chickenpox among the school children in the county. While I could not find any of them in an eruptive stage, I obtained histories from the parents and school teachers which tallied with that of chickenpox and not variola. One school teacher told me that very nearly every pupil in his school had been attacked.

Very truly yours,

C. E. FERGUSON, M. D.

DR. A. W. BRAYTON'S REPORT.

January 23, 1900.

Indiana State Board of Health:

Pursuant to your request of noon, January 20, I went to Peru to investigate a case of eruptive disease supposed to be variola. I reached Peru Sunday evening at 5 o'clock and was met by Dr. J. Malsbury and Dr. Kalbfleisch, the latter President of the County Board of Health. We went at once (Dr. Malsbury and myself) to the case in question, at 334 East Fifth street, Peru. The patient is a child of Mr. Adam Rutz and is a girl well grown, of eleven years of age. In the family is also the mother, a boy of eight years, a girl of six years and a girl of four years, also an infant of two years. Only the girl, Ola Rutz, was sick. She had a fever of 101½; there were papules on the brow, seven or eight; several lesions in the scalp; a few, four or five, on the wrists; four or five on the ankles, and two or three on the bottom of the feet. Upon the back were a couple of hundred lesions, and others on the chest, arms and thighs, but none on the palate.

The lesions on the back were muscular, papular, vesicular and a number apparently pustular; of the latter, twenty or more with unbilicated centers and several resembling the fifth day of vaccination pustule.

The case was suspicious; the light was poor, and we made no conclusion at the just writ. The two older children attended school. They knew of no eruptive disease; the family had remained strictly at home and had no visitors since the Christmas holidays, and had not visited the stores—a remarkably isolated family. They attended the Third Ward school—eight rooms and three hundred pupils. The case was difficult; had it been seen at Clay City I would have regarded it without further study as the first appearance of smallpox.

From Dr. J. O. Malsbury, who saw the child Sunday morning at 10 o'clock, I learned the following: The child was at school Friday morning, but felt badly at noon and so stayed at home. She had headache, backache, and Friday evening a chill, with fever Saturday and Sunday morning. First spots were seen on the forehead, scalp and neck Friday morning. Sunday (and Saturday also) they became thick on the general body.

Sunday evening at 7 o'clock I went with Dr. L. O. Malsbury (brother of J. O. Malsbury) to see some cases he thought were chickenpox. There were six children in the family of Mr. Collins (179 East Second street), all

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with or just over the disease. The baby, fifteen months old, had fifty scabs on brow, many on scalp, some on chin, others on bottom of feet and palms, two hundred on chest, on back of very uniform size. The older children had recovered, but there were some permanent marks.

The father had an overcoat he had purchased from a Cuban soldier.

None of the children were vaccinated in either the Rutz family or Collins's family. Mrs. Collins was vaccinated but had not taken the disease. Mr. Collins is vaccinated; also Mr. and Mrs. Rutz.

Monday morning I visited the Collins family again by daylight; also two adjacent families, where four children from six to thirteen had presented a similar eruption. All were unvaccinated; some were pox-marked.

I then went with Dr. J. O. Malsbury and studied carefully the Ola Rutz case in a good light, and opened some of the vesico-pustules. The skin over the pox was yellowish and very firm; there was no distinct drop of pus to be gotten out, but rather a necrotic yellowish material. The fever had subsided; the girl was feeling better; there were very many small pots intermingled with the vesico-pustules. I felt convinced the case was varicello. But to make sure, I visited the superintendent of public schools, Prof. A. E. Malsbury, and asked him to call up the various public school principals and ask the number of cases of eruptive disease. In an hour I had the names and evidence of twelve families in which chickenpox had occurred. I visited three different school buildings and saw children who had gotten over the disease and returned to school. In their homes I saw twelve different cases and altogether learned of some twenty-five cases.

I went to the high school building and found that no high school pupil of the two hundred and twenty-five had been sick with the chicken-pox. This last fact was very satisfying and clinched the diagnosis, as the high school youth is from fourteen to twenty years of age. No school-teacher had the disease, another good point, and no adult in the city, whether vaccinated or not.

I may here say that I vaccinated the girl Ola Rutz, and also left ten glycerinated tubes for Dr. Malsbury to vaccinate the Collins family and others who had had the chickenpox for confirmatory evidence.

Peru has an unvaccinated juvenile population; it is estimated that not one child in fifty is vaccinated in the lower grades, as there has been no vaccination there since 1893—the time of the Muncie epidemic.

I pronounced all the cases I saw and studied varicella; that is, chicken-pox. The children are out of school with the pox from two days to a week. Among doctors who had been called to visit cases were J. O. Malsbury, six; L. O. Malsbury, one; Dr. Helm, two; making nine in all. Neither Dr. Kalbfleisch, Dr. Ward, Dr. Freeblood, nor Dr. Ridenour, the city Health Officers, upon whom I called, had treated or seen chickenpox.

There are probably seventy-five to one hundred cases in the city, of which I heard of twenty-five through my efforts. The disease has been among children through December, 1899, and January, 1900, to date. It is mainly in the east side of the city.

I could not get through my work Sunday; I could not get through by noon Monday; I had to stay until 3:25, getting back to the city at 5 p. m.

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I should have stayed until the end of the week if necessary to clear up the diagnosis. The people were very kind and the physicans notably so. The case of Ola Rutz was very difficult; it was observant and suggestive of variol.

Some of the children were very sick, fever high; headache was marked; some vomited. The eruption was usually the thickest in the covered parts. In some it was thickest on the brow and scalp. Several had vesciles in the soles and palms. A number had sore throat and lesions on soft palate. The disease was in cleanly homes. Few went to bed. Few called a doctor. Only Dr. L. O. Malsbury had a very suspicious case. The people generally called the disease chickenpox. To me it was a very instructive visit, as I found out how great are the variations from classical descriptions.

Very respectfully,

A. W. BRAYTON.

January 25, 1900.

Indiana State Board of Health, Indianapolis, Ind.:

Gentlemen—Pursuant to order of Thursday noon, January 24, I went to Monon, White County, leaving on the 3:25 p. m. train, to determine the nature of the eruptive epidemic in that town.

I was met by Dr. R. M. Reagon, Health Officer of Monon, who told me that in the town of fifteen hundred people there were a number of suspicious cases and that he had become convinced there might be smallpox in a mild form, and had therefore placarded several houses temporarily as "smallpox" while awaiting your action. In company with Dr. R. M. Reagon and Geo. R. Clayton, I drove two miles into the country and saw a girl of twelve years, unvaccinated, and with papules, mocules and papulo pustules (ten in number) on her back. They came first on Friday, and on Saturday on the back and chest, and three or four days later on the brow and arms. The bowels and feet were free of eruption. We returned to Monon and between 8 and 10 o'clock saw eight or nine cases of children, five to ten years of age, in four or five different families. As some of the cases were not accessible until morning, I decided to remain and see all the cases by daylight.

Therefore, from 8 to 10 o'clock Saturday morning, we visited the cases and studied them again. I decided all the cases seen to be varicella (chickenpox) for the following reasons:

1. All the cases were in children under thirteen years of age, except two, five miles out in the country, fifteen and eighteen years of age, which I did not see. Two adults with an outbreak on neck and skin, accompanied with cold and some fever, proved to be suffering with ——— of a persistent type, lasting for years. They were ruled out, of course.

2. The eruption first appeared in the covered parts of the body, extending to the face and extremities later. Moreover, the eruptions came in successive crops, were of varying sizes and presented the classical features of varicella.

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3. The eruption in one family only affected the younger children; the older children had the chickenpox several years before and were exempt.

4. The unvaccinated parents, schoolteachers and other adults exposed to those children had not taken the disease. For these and other reasons I decided the cases to be varicella, and in this conclusion Drs. Reagon and Clayton also agreed.

I saw a number of the citizens, the editor of the local paper, the superintendent of city schools, the druggist, and others, and explained the situation fully and commended the local physicians for their honesty, sagacity and conscientiousness in regarding the cases with suspicion, and in isolating the afflicted until the nature of the disease was developed and established.

I may say in closing that twenty-eight years ago there was a virulent epidemic of smallpox in Monon, with some sixty cases and over twenty deaths. Several of the citizens still live in Monon and are still marked with smallpox. A physician and his wife and two children died at the time.

Dr. Reagon expressed his gratitude to the Board of Health for sending them aid promptly, and also stated that he thought it the duty of the Board to sustain and aid the physicians and Health Officers as promptly in determining the nature of doubtful eruptive fevers at such times of eiqdemic, fright and suspicion as to aid the people when the disease is really upon them.

The citizens, railroad people and physicians were greatly relieved by the decision that all the present cases seen and studied by me were chickenpox.

I neglected to say that I had several of the children with chickenpox at once vaccinated so as to confirm by the appearance vaccino the diagnosis of varicella.

A. W. BRAYTON, M. D.

February 1, 1900.

State Board of Health, Indianapolis, Ind.:

Gentlemen—Pursuant to order, I went to Terre Haute at 7 o'clock Thursday evening, February 1, 1900. In the morning (February 2, 8 o'clock) I met the Secretary of the Vigo County Board of Health, Dr. J. M. Talbott; also Drs. Rice, Charles Gertsmeyer and Willien, the members of the Terre Haute Board of Health.

The matter of interest was as to the rights and duties of the City Health Board as to quarantining a certain boarding-house, kept by one Mrs. Ernbart, on North Sixth street. In this house are seven to ten regular boarders, and from ten to twenty-five different persons each day.

On Friday, one week ago, January 27, 1900, one Allison Peck, twenty-three years of age, male, unvaccinated and single, working in a store, commenced to board at said boarding-house.

He was taken sick on Thursday and was in the care of Dr. Moorehead, who treated him Friday, Saturday and Sunday in bed. Tuesday Mr. Peck sent a telephone to Dr. Moorehead that he was better and the doctor need not visit him. Tuesday evening Peck visited the doctor's office and had a generalized eruption. Dr. Moorehead called in Dr. Gertsmeyer, of the

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City Board of Health, who thought the case to be smallpox. Dr. Moorehead made the contagious disease report to Dr. Willien as suspected smallpox, and asked leave to hold the case for further diagnosis a day or more. The Board did not hear from Dr. Moorehead until Thursday, when he reported that Allison Peck had left the city. The belief is that he (Peck) left on Wednesday evening, 6:30 o'clock. On Thursday, February 1, at 4 p. m., Dr. Willien received a telephone from the Secretary of the Board of Health of Canton, Illinois (two hundred miles distant), that Allison Peck had returned to his home at Canton with smallpox, so diagnosed by three physicians of Canton, and was quarantined.

Inasmuch as Peck had been at meals with the other boarders only the first day of the prodromal stage, and had kept his room while the eruption was developing to the papular stage, it was advised by the City Board of Health of Terre Haute, as by Secretary of County Board of Health (Dr. J. M. Talbott), that the house be quarantined.

I conferred with you, as you will recall, by telephone at 11 a. m., Friday, stating the above facts.

As the room had been disinfected, the City Board of Terre Haute decided to again fumigate and disinfect the room with formaldehyde, and to vaccinate any who were not already vaccinated; otherwise the entire house would be quarantined, and vaccination empowered on all in it. I urged upon the City Board that they make a formal order to the people at the house and make a record of the same, which they stated would be done—this through Dr. Rice and the sanitary officer.

I may say in conclusion, that the City Board of Terre Haute—Drs. Willien, Rice and Gertsmeyer—are very capable and efficient, and feel fully the responsibility resting upon them in the present emergency.

The City Board told me that early in January two families—Whitehead, and one other—moved from Clay City to a suberb of Terre Haute, two miles northeast of the city. The families had an eruptive disease, first reported by Dr. Niblack of Terre Haute. Dr. Talbott, the Secretary of the County Board, saw the cases and regarded them as chickenpox. The City Board ordered the members of these two families not to enter Terre Haute. No quarantine was ordered. It was not known to me whether there were children in these two families or not.

Dr. Rice told me that one Mr. McClaskey, a student at the Normal School, now has fully developed smallpox in the eighth day of the eruption. He at once left his boarding-house on the beginning of the prodromal symptoms, and moved with his wife to the home of his mother at 105 Gilbert avenue, Terre Haute, where he is quarantined. The City Board states that Allison Peck and McClaskey took their disease from one Damar, a Clay City citizen, who worked in the Vandalia shops while the eruption was developing. He had no physician. Other boarders complained to the authorities about Damar, as he was from Clay City. Dr. Willien saw him in the desquamation stage and thought it might have been varicella (statement of Dr. Rice).

Dr. Rice says that no doubt Damar has exposed two hundred people and is still at work in the shops. Drs. Rice and Willien both stated that they feared there might be several infected in Terre Haute and that the end is not yet.

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I heard numerous expressions of satisfaction from the physicians that the Supreme Court of Indiana had ruled in favor of vaccination and had affirmed the police power of the State and County and City Board of Health.

Very respectfully,

A. W. BRAYTON.

DR. CHAS. B. COLLINS'S REPORT.

January 27, 1900.

Indiana State Board of Health, Indianapolis, Ind.:

The following is a brief statement of affairs at Clay City, Clay County, Indiana:

On arriving at Clay City, Thursday evening, January 18, I learned that the inhabitants of the above city were in quite a confusion over Dr. Hurty's report a few days previous.

The greater portion of the more intelligent class of people were very much alarmed when Dr. Hurty diagnosed the supposed "chickenpox" to be "smallpox," and were willing to take such precautions as were necessary to prevent the further spread of the disease, while there were quite a number of the indolent class that were giving it but little attention. Friday morning, January 19, I commenced visiting the patients, noting the character of the eruptions and in several instances getting a history of the symptoms, which are as follows:

They stated that they experienced no marked prodromic symptoms; all of a sudden they took a severe headache and backache with a chill, sometimes chill being very severe, nausea and high fever.

Their history of the eruption:

They were sick usually two days when they noticed a redness of the skin, and on the third day small red spots about the wrists, on the forehead near the hair, and around the mouth; until this period was reached they had marked fever, but now it fell to normal or about so. On the fourth day the spots changed to little hard lumps (papules); on the next day or so the papules changed to blisters (vesicles); on the sixth or seventh day the vesicles changed to pustules, some stating that at this period they again had fever. In somewhat less than a week the pustules began to dry up. They were especially thick on the face, which was much swollen. The above is their own story and their own language as near as I can express it.

I visited the greater part of the patients in Clay City from two to three times, and quite a number in the surrounding country.

I found quite a large number in each stage of the disease, some in the state of invasion, in the macular, others in the papular, and still others in the vesicular and pustular stages.

The following is in brief the state of affairs that I, myself, noted:

Invasion.—So sudden was the invasion that some would be on the streets making the remarks about the "scare," and the next day the same persons were not able to be up. They usually began with a chill, severe headache and backache, at times vomiting, pulse rapid and strong and marked fever.

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Eruption.—Usually on the second day after being sick the skin became slightly red and on the third day small spots appeared on the forehead near the hair, around the mouth and upon the wrists. At this period the temperature fell to normal or about so. In another day or so the eruption became general over the entire body. A short time before its appearance on the skin the eruption developed on the mucous membranes of the trachea, larynx, fauces, and on the soft palate. On the fifth day the eruption had become papular and in passing the fingers over the skin the "shotty" sensation was very marked; so marked was this that almost every patient stated that they felt like shot under the skin. The papules became vesicles in from twenty-four to thirty-six hours, usually the latter. From the sixth to the seventh day the vesicles changed to pustules. In every case there were pustules on the palms of the hands, soles of the feet, and in several instances under the nails. Not all the pustules were "umbilicated," but a large per cent. of them were. There was an odor about some of them that to me was characteristic of a "wet dog."

When Dr. Brayton and son visited several of the patients Friday, January 19, and corroborated Dr. Hurty's diagnosis, the laity in general were awakened and were willing to submit to almost any measure to prevent further spread of the disease.

The physicans, except Dr. Wolf, also began working at this time to prevent its spread; but not until this time was there any great effort on the part of Drs. Modesitt and Freed. All the above doctors until this time had been diagnosing the disease as "chickenpox." Although having been diagnosed as "smallpox" by Drs. Hurty and Brayton, Dr. Wolf still contends, or at least did until January 21, that the disease is not smallpox, but nothing more than chickenpox.

He seems to be of this belief, although some who have had this so-called "chickenpox" during this epidemic state positively that they had had chickenpox during their childhood. It seems that his chief argument is "that nobody is dying with it."

Drs. Modesitt and Freed seemed to do all they could to stop the spread of the disease, after Drs. Hurty and Brayton diagnosed it as "smallpox;" but before such action was taken it had spread several miles from the city.

Dr. Vandivier states, and his statements are corroborated by a majority of the laity, that ever since the disease developed there he diagnosed it as "smallpox."

On January 22 there was estimated to be a hundred and forty-three cases in Clay City, and quite a large number in the sorrounding country.

They were all of the discrete form with the exception of four or five who were of the confluent form.

CHAS. B. COLLINS,
Indianapolis, Ind.

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LETTERS TO CLAY COUNTY HEALTH OFFICER.

Indianapolis, Ind., January 28, 1900.

Dr. F. B. McCullough, Brazil, Ind.:

Dear Doctor—Did your County Board of Health, after being called together as a Board of Health, formally order you to close the schools and to use strict quarantine in infected districts, and was this order promptly recorded in your Secretary's books of the proceedings of your County Board of Health? If this was not done, the procedure has not been legal. Did the Board also order that you employ help and that the necessary bills incurred be sent to it for payment? It is not necessary to have an appropriation by the law to pay for this expense of protecting the public health. The supreme law says that the public health shall be protected, and it furthermore says that any expense attendant thereon shall be met. Your County Board of Health, therefore, has not only the right, but it is its duty to proceed summarily and immediately to stop infectious and contagious diseases. The debt incurred will have to be paid. The law so commands.

We wish you would be more explicit in your reports, and report every day, if possible. Tell us concerning school districts, giving their number, name of trustee for each district, if you happen to go to any such districts. Also give number of cases found. In a word, be more specific and not so general. It is specific information that is desired, as it is an easy matter indeed to write "quarantine has been enforced and infected districts looked after." Do not fail then to give us the names of the districts; that is, the school names; the number of cases, their condition; and any information concerning the matter.

Very truly yours,

SECRETARY STATE BOARD OF HEALTH.

Indianapolis, Ind., February 15, 1900.

Dr. F. B. McCullough, Brazil, Ind.:

Dear Doctor—You will remember some time ago I telegraphed you for reports concerning the smallpox conditions in Clay County; also that a letter was written to you upon the subject, and I also, when in Brazil, told your son that reports to this Board were very necessary and should be sent in, for such were the orders of the State Board of Health. Nothing whatever has been recovered from you and for this I have received a severe reprimand from the Board. It now becomes necessary to demand that you give this Board without further delay a full and complete report of all that you have done for the suppression of smallpox in Clay County. This report we will expect to receive by the 20th of February. It must be full and complete and not general in its nature, but instead, specific. Tell as closely as you can the number of cases you think have been in the county, the number of deaths, how many visits you have made, the result of the inspections of the Health Officers appointed for the infected townships, and, in a word, as stated above, a full, complete and exact account of all that has been done. The Health Officers of

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Owen, Vigo, Washington, Greene and surrounding counties have sent almost daily reports, and they have been giving almost their whole time to the work. Washington County is as badly afflicted as Clay County, and Dr. Mayfield has been on horseback almost continuously since January 15. He has found the time, however, to send full and complete reports. To be clear and to be sure there is no misunderstanding, we repeat that we demand a report from you by the 20th of February.

Regretting that you have not reported of your own volition, and regretting also that you have not reported in accordance with the three requests made heretofore, I am,

Very truly,
SECRETARY STATE BOARD OF HEALTH.

Indianapolis, Ind., March 2, 1900.

Dr. F. B. McCullough, Brazil, Ind.:

Dear Doctor—I wrote you on February 15, calling your attention to the fact that by telegraph, by letter and by word of mouth to your son, the State Board of Health had notified you it would expect from you frequent reports in regard to the smallpox situation in Clay County. You have not to this date shown us even the common, ordinary courtesy of an answer. On this account I have received a severe reprimand from the State Board and have been formally ordered to inform you that proceedings under law will be commenced to dismiss you from office. You are, therefore, summoned to appear before the Indiana State Board of Health at its regular meeting, Friday, April 5, 1900, then and there to answer to the charge of failure to make reports, to answer letters and to obey rules.

I deeply regret that you have forced the State Board to proceed in these extreme measures, but you are the only officer in the whole State that has refused to answer letters, to obey rules and to make reports, as the law commands. The penalty is a fine of not less than ten dollars nor more than one hundred dollars, and dismissal from office. Please take notice of the summons above issued, namely, that you shall appear here at Indianapolis, in the rooms of the State Board of Health in the Capitol Building, on Friday, April 6, 1900, at 3 o'clock.

Very truly yours,
SECRETARY STATE BOARD OF HEALTH.

Bulletins, pamphlets and leaflets received for the quarter ending March 31, 1900:

Bulletins--

State Board of Health of New York	3
Bulletin North Carolina Board of Health	1
Ohio Sanitary Bulletin	1
Monthly Reports of Department of Health, City of Buffalo	2
Bureau of Vital Statistics, City of Chicago	3
Monthly Reports of Bureau of Health, City of Denver	3
Department of Health, City of Rochester	3
Weekly Reports of Department of Health, City of New York	5

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Public Health Reports..... 12
Treasury Department, Washington, D. C..... 13
U. S. Department of Agriculture..... 6
Monthly Bulletin of Rhode Island..... 1
Monthly Bulletin State Board of Health, Connecticut..... 1

Pamphlets—
U. S. Department of Agriculture..... 4
Monthly Reports of Boards of Health, Ottumwa, Iowa..... 3

Leaflets—
Health, in Michigan..... 14
Reports of Vital Statistics of Havana..... 3
City of Portland, Me..... 2
Vital Statistics of Evansville..... 1
Monthly Report of Ontario..... 1

The above report was received and approved.

Dr. Forrest offered the following order, which was unanimously passed:

Ordered, All county, city and town Health Officers are ordered to keep close watch and make special investigations in their several jurisdictions in the matter of the communicable diseases named in Rule 1, and see to it that the same are properly reported. Where a physician is negligent in reporting or refuses to report, to file against said physician according to the form given by the Attorney-General; and be it further

Ordered: The Secretary shall have this order printed and send a copy of the same, together with a blank form of complaint, to all county, city and town Health Officers.

Unanimously passed.

CEDAR LAKE.

Letters from Dr. J. N. Taylor, Crawfordsville; Mr. H. Braden, Crawfordsville, and Dr. N. C. Boner of Knox, were read, which related in effect that a ditch had been opened leading from Cedar Lake, in Starke County, and that this drain would soon lower the lake, expose large areas of land bearing aquatic plants, that said plants and some animals would die, and thus would be produced unwholesome and noxious gases and poisonous products to the detriment of the public health.

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The petitioners further gave the information that some years ago a ditch was opened from this lake, and the State Board of Health then in existence ordered the ditch filled up after a careful investigation and study of the matter.

After consideration the Board—

Ordered: The Secretary shall visit Cedar Lake at an early day, make a thorough sanitary survey and report back in full.

The case of Dr. F. B. McCullough, Health Officer of Clay County, living at Brazil, was taken up. This officer had failed utterly to make reports and answer letters of the State Board. The correspondence on page 82 explains itself.

Dr. McCullough did not put in an appearance, totally ignoring the summons and charges against him, and after full discussion and consideration of the charge of failure to answer correspondence and make reports, the State Board formally discharged Dr. McCullough.

MAY CONFERENCE OF HEALTH OFFICERS.

Ordered: The Secretary shall call a meeting of all State Health Officers for two days, May 8 and 9, and shall prepare a program.

Bills allowed.

Adjourned.

Approved July 13, 1900.

T. HENRY DAVIS, *President.*

J. N. HURTY, *Secretary.*

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THIRD QUARTER.

OFFICE INDIANA STATE BOARD OF HEALTH,

July 13, 1900.

Present: Drs. Davis, Laughlin, Forrest and Hurty.
Dr. Davis called the meeting to order at 3:30.
Minutes of last meeting read and approved.
Secretary's report was read as follows:

REPORT OF SECRETARY FOR THIRD QUARTER, ENDING JUNE 30, 1900.

Letters received during quarter, 1,260. Letters written, 1,416. Bulletins and circulars distributed, 7,000. The mortality statistics were collected, tabulated and analyzed for each month as appears in the Monthly Bulletin, which were promptly printed each month of the quarter. Despite the fact that officers and deputies are all supplied with rules and specific directions in regard to collecting mortality statistics, still misunderstandings and failures occur each month. These derelictions are always sharply followed up and righted.

The Secretary at his own expense made examinations and analyses as follows:

20 sputum examinations—8 negative, 12 positive.
30 diphtheria examinations—5 pure K. L. cultures, 15 mixed infection, 1 negative.
3 vinegar analyses—All under grade.
4 water analyses—2 were good, 2 polluted.

Prosecutions of physicians and midwives for failure to report births and contagious diseases have been conducted successfully in Owen, Allen, Steuben, Lake and Madison counties. In Allen

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County Dr. Proegler prosecuted successfully fourteen midwives and two physicians for failure to make birth reports. In Steuben County Dr. Lane won one case, but the second was dismissed twice. The first dismissal was because of an error in the affidavit, the second because the County Auditor had failed to make record of the order of the County Commissioners to promulgate the rules of the State Board of Health. The Steuben County Medical Society, five members present, on account of this case passed the following resolution:

"Resolved, That in the prosecution now pending against a member of this society for failure to report births coming under his care, that this society pledges its moral and financial aid in the defense, even to an appeal to the Supreme Court if necessary."

SMALLPOX.

There has been less smallpox in June than in the preceding months. Reports are promptly made and some of our officers send really classical reports. The proper care of smallpox cases, quarantine, vaccination, etc., are now very thoroughly understood by officers and the rules are well enforced.

Following is a table of smallpox cases during June:

1st. Silver Island.—One case, boy, unvaccinated.
4th. Gibson County.—Two cases, males, 31 and 5 years of age.
5th. Clay County.—One case, death, hemorrhagic.
5th. Tunnelton.—One case, death, adult, vaccinated five times.
5th. Tunnelton.—One case, child.
7th. Starke County.—Three cases.
1st-8th. Elwood.—Twenty cases.
9th. Jeffersonville—Three cases, adults, never vaccinated.
10th. Johnson County.—One case, adult.
12th. Frankfort.—One case, adult.
13th. Lawrence County.—Two cases.
15th. Jonesboro.—Seven cases.
20th. Jonesboro.—Two cases.
23d. Frankfort.—One case.
26th. Jonesboro.—Five cases.
28th. Lyford.—One case.
30th. Warren County.—One case.
1-30th. Indianapolis.—Three cases.
1-30th. Irvington.—Nine cases.
1-30th. Anderson.—Twenty-eight cases.
1-15th. Alexandria.—Twelve cases, one death.
Total for month, seventy-six cases, three deaths.

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SECRETARY'S VISITS.

Visits were made by the Secretary during the quarter as follows:

April 3—Peru, account smallpox.
April 12—Connersville, account smallpox.
April 20—Connersville, account lecture.
May 1—Hammond, account smallpox.
May 1—Michigan City, account prison inspection.
May 2—Brazil, account smallpox.
May 4—Logansport, account smallpox.
May 12—Montpelier, account smallpox.
May 15—Washington, account lecture and conference.
May 24—Middletown, account smallpox.
May 25—Anderson, account smallpox.
May 28—Atlantic City, account conference of State Board of Health.
June 14—Elkhart.
June 14—South Bend, account conference with city authorities.
June 18—Marion, account smallpox.
June 25—Ft. Wayne, account lecture.

Full reports are here given of the above visits:

PERU.

April 3, 1900.

On April 3 the Secretary visited Peru on account of a telephone message from Dr. Kalbfleisch, Health Officer of Miami County, and Dr. Ridenour of the city of Peru. Visit was requested on account of a supposed case of smallpox. The usual disputes had arisen, the diagnosis of the Health Officer being disputed by several local physicians and doubted by business men and others. Upon arrival, together with the Health Officers named, I visited the case and found it to be undoubtedly smallpox. The case was dircrete, the man having probably acquired it on the railroad, for he was a railroad brakeman, and although living in Peru, had not been in that place for almost twenty days prior to the outbreak. The case was carefully quarantined, public vaccination recommended and executed and the business men and newspapers were requested to give their full support to the Board of Health in its efforts to prevent an epidemic. This support was heartily given, with the result that no new cases appeared.

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CONNERSVILLE.

On April 12, on account of telephone message from Dr. Derbyshire, Health Officer of Fayette County, I went to Connersville to settle diagnosis of a case supposed to be smallpox. It was discrete and terminated in recovery. The patient had probably acquired the disease in Indianapolis, for he had been exposed in that place. Quarantine was established, vaccination recommended and performed without charge for all who would accept. Subsequently the disease appeared at the poorhouse, four patients in all being affected. The precautions applied in the first place prevented spread from that case, while those in the poorhouse on the very edge of Connersville were acquired elsewhere. The total number of cases at Connersville was five and all recovered. The first patient referred to, Casper Schwaltz, had been vaccinated at six years of age, but the scar was hardly discoverable.

CONNERSVILLE.

April 20 I went to Connersville to deliver a public lecture on public health affairs. The lecture was delivered in the Connersville opera-house to an audience which filled the room completely, extra chairs being introduced. The lecture was well received and resolutions of thanks offered. The visit was in consequence of an invitation from the Connersville Business Club.

HAMMOND.

On May 1 I visited Hammond and Michigan City. The first-named city on account of smallpox, and the second to make a sanitary inspection and report on the Northern Prison. At Hammond one case of smallpox was found which had been diagnosed as chickenpox. Many exposures had occurred in consequence of this wrong diagnosis. The case was taken to a recently erected eruptive disease hospital and there carefully treated, and finally recovered. The usual recommendations as to vaccination and disinfection were given and carried out.

INDIANA STATE PRISON.

The Secretary visited the prison at Michigan City May 1. Warden Shideler conducts this institution scientifically, and this

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means much. Daily written reports from every department are returned to the Warden, and it is very plain that he scrutinizes them carefully. Neatness, order, thoroughness, an atmosphere of hopefulness and respectfulness abounds. The cellhouses are free from any of the so-called "prison odor." This is because of perfect forced ventilation. Enameled iron buckets are still used in the cells, but the old horrible tubes which were formerly known in the shops have all been replaced by flush closets. The cement walks, sodden areas and fountains make the grounds within the walls attractive and have undoubtedly a moral uplift in them.

The prison farm is a prominent feature of the Indiana prison. One hundred acres comprise the farm. It is a model in every respect, being laid off in ten-acre sections with a ditch between each section. Warden Shideler expects to raise this year all the vegetables the prison will need and have some to spare. The bill of fare for the prisoners is changed daily, the Warden himself arranging it. Formerly each day was characterized by certain foods, the prisoners knowing exactly what to expect. This was not conducive to good health and spirits. For the prisoners not to know what they are going to have to eat is certainly conducive to good health, for every person knows how repugnant and opposed to good relish and digestion it is to know exactly what each meal will be.

The water supply of the prison is direct from Lake Michigan. The former supply was from wells within the walls. It was polluted and besides was corrosive to the boilers and steam pipes. The present supply is most excellent. Since its introduction, about eighteen months ago, but one case of typhoid fever has been reported. The prisoner having the disease had been in prison thirty months. Either milk or water must have borne the infection, for all foods but these are perfectly sterile. It would not, however, seem surprising to find occasional cases of typhoid caused by water taken from the southern end of Lake Michigan when one considers the ocean of sewage received by that body of water. The Chicago drainage canal will certainly very soon make a great difference in the sewage content of the Lake.

There are now six cases of pulmonary tuberculosis in the prison hospital, and there is one case of gland tuberculosis. All of these cases developed after coming to the prison, but all had feeble constitutions, and most had a tubercular tendency from heredity. Dr.

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A. L. Spinning, the prison physician, reports marked improvement in the general health of the prisoners since the better sanitary conditions have been introduced.

BRAZIL.

On May 2, immediately on return from Michigan City, I went to Brazil on account of smallpox. The usual disputes as to diagnosis existed. One case of unquestionable smallpox was found in the city of Brazil, but the same had been kept under quarantine in spite of protests. One other case was found at Knightsville, a small town about one and a half miles southwest of Brazil. The usual precautions were taken and the usual recommendations offered. No cases could subsequently be traced to those above named.

LOGANSPORT.

On May 4, on account of urgent telephone message from Dr. Downey, I went to Logansport to investigate smallpox, arriving at 10 o'clock on the date named. I drove immediately with Dr. Downey to see the suspected case. The patient was a railroad man and was just entering the pustular stage of the disease. The case was a discrete one, but very severe. The Logansport authorities were urged to establish a pesthouse and remove the patient thereto, and be prepared for a possible epidemic. A pesthouse was promptly provided and the patient taken care of as recommended. Fortunately but one more case appeared, and that one had no connection with the one just described. The parties exposed were looked after in the usual way and the community urged to practice vaccination. One of the Logansport papers and also not a few of the business men protested that the disease was not smallpox, although they had not seen the cases and had no experience with the disease. The protests were loud and very abusive of the Health Department.

MONTPELIER.

I went to Montpelier on May 12 on account of an urgent telephone message from Dr. J. C. O'Day, who reported a case of suspected smallpox, the appearance of which had thrown the city into considerable excitement. The case was found to be smallpox without question. The patient was a man past fifty years and he

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eventually died. The history of the case was interesting and as follows: About the middle of April a man, an ex-saloonkeeper, had come to Montpelier, having a sister living at that place. The said sister was a widow and had one child, a boy about nine years old. The visitor from Chicago developed an eruptive disease which was diagnosed variously. Several physicians pronounced it chickenpox, one said it was pemphigus, while another said the eruption was caused by a snake bite experienced twenty years before. The child alluded to, a nephew of the man just described, promptly developed an eruptive disease and in the eighth day died. The disease was diagnosed as chickenpox. The case described above, of the man past fifty, who died, was an uncle of the boy who died. This uncle had attended the boy during his illness and had laid him out after death. From this history it seems probable that the two previous cases of disease, one, the boy, proving fatal, the other, the man recovering, were very probably smallpox. On account of rigid quarantine and very general vaccination there was no further spread of the disease.

WASHINGTON.

On May 15 I visited Washington, Ind., in order to confer upon sanitary matters with the Mayor and City Board of Health, and also to deliver a lecture upon public health affairs. Washington sadly needs sewers. At present there is not a single sewer in this city. A few brick streets have been laid and the mistake made of not first putting down sewers. The water supply of Washington is from wells, and seems to be of good quality, although suspected by many citizens. The city authorities were urged to introduce sewers, make a perfect water supply, to recommend vaccination to the people and to pass an ordinance requiring cleanliness as to garbage and general household refuse. The lecture was illustrated by lantern and delivered in the Christian Church to an audience completely filling the room. A resolution of thanks was offered by the audience, and several speakers spoke highly of the work which was being done by the State Board of Health.

MIDDLETOWN.

On May 24 I visited Middletown on account of suspected smallpox. Middletown has about twenty-five hundred inhabitants

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and is situated in Henry County, about seven miles from Anderson. I found two cases of unquestioned smallpox. The first was that of a woman about twenty-five years old and the mother of three children. She was in the pustular stage and nursing a child. The child was just entering the disease, but had been vaccinated at the first alarm and had a very mild attack. A boy about five years old had evidently had the disease and completely recovered. Upon confirmation of diagnosis I met the Town Board, distributed the rules of the State Board of Health and gave full instructions for the management of smallpox and prevention of its spread. I also took occasion to speak about general sanitation for a place like Middletown. My suggestions were agreeably received and I hope in time some of them will be put in force.

ANDERSON.

On May 20 I visited Anderson in order to confer with the City Health Officer and city authorities in regard to establishing a pest-house and the better management of smallpox. The first case of smallpox appeared in Anderson during the holidays of 1899. Certain newspapers ridiculed the idea of smallpox being present, and by persistent abuse of the health authorities prevented co-operative action of the people in the work of suppression. The result was that the disease has not been absent from Anderson since December 29 to the present time. The failure of the citizens and the action of the newspapers undoubtedly has been very costly to Anderson, exciting the suspicion of the inhabitants of the surrounding country and thus interfering seriously with the trade of the State. It is to be regretted that all the people did not thoroughly understand that business and smallpox can not go on together, and those who are studying in the matter of contagious and infectious diseases are better able to make diagnosis than newspapers or business men. It might be well to make record of the fact that a committee appointed by the State Medical Association to examine the cases of smallpox at Anderson reported them all to be smallpox, but received ridicule and abuse from the newspapers of that town for their conscientious and scientific work.

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CONFERENCE OF STATE AND PROVINCIAL BOARDS OF HEALTH.

In accordance with permission granted by the State Board of Health I attended the Conference of State and Provincial Boards of Health at Atlantic City the last week in May. Being Secretary for the third year of this Conference, attendance was almost obligatory.

The sessions were held in the Hotel St. Dennis. At the first session thirty-eight, about three-fourths of the whole number of members, were present.

After a formal greeting by the Mayor of Atlantic City and the conclusion of the business part of the meeting, the following papers, as per program, were read: "The Construction and Ventilation of School Buildings," Mr. Horace J. Cook, architect and supervisor of Philadelphia public schools; "An Economic Estimate of the Value of Perfect Ventilation in Schools," Dr. Bryce, of Toronto, Canada; "Legislation for the Protection of School Children in Pennsylvania," Dr. Benjamin Lee, of Philadelphia; "The Age at Which Children Should Be Set to Work in School, Character of Work in School, Hours of School Attendance Consecutively per Diem," Dr. George McCutcheon, New Orleans; "Air Space in Schools, Its Influence on General Health, Its Influence in the Transmission of Disease, Its Influence in the Progress of Study," Dr. Charles W. Fruith, Augusta, Me.

Besides these papers, other phases of school hygiene were discussed—the use of types, prints and blackboards in their relation to the preservation to eyesight; the principles of lighting schoolhouses and regulating seating at proper distances from charts and blackboards; ventilation of school buildings; amount of air hourly required; natural ventilation of the schoolroom; artificial ventilation, and mechanical appliances; methods of school heating and also combined with ventilation, its influence on health and the part played by it in the spread of contagious diseases.

"Relations of State and Local Boards of Health to Outbreaks of Diphtheria," was discussed by Dr. Bailey of Kentucky and Dr. Tyler of Colorado. "What practical Steps Can Be Taken to Secure General Vaccination in Our Rural Population?" was discussed by Dr. Mitchell of New Jersey and Dr. McCormick of Kentucky. "Is It Advisable for a State to Provide Vaccine

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Virus?" was discussed by Dr. Evans, of South Carolina, and Dr. Swartz, of Rhode Island, "Should State Boards of Health Be Given a Controlling Voice as Regards Plans for Public Water Supplies and Sewerage Systems?" was discussed by Dr. Beatty, of Utah, and Dr. Probst of Ohio. "If the Plague Should Pass the Quarantine and Enter Your State," was discussed by Dr. Fulton of Maryland and Dr. Baker of Michigan. "Placarding of Houses for Contagious Diseases," discussed by Dr. Cooper of Delaware and Dr. Kennedy of Iowa. "What Are the Most Practical and Successful Ways of Educating the Public in the Principles and Practice of Sanitary Science?" was discussed by Dr. Hurty of Indiana and Dr. Lindsley of Connecticut.

In the evening Dr. U. O. B. Wingate, of Milwaukee, President of the Conference and Secretary of the Wisconsin State Board of Health, delivered his annual address, his subject being, "A National Commission of Public Health."

Dr. Wingate said he believed it to be the candid opinion of the great majority of physicians and sanitarians in this country that some national organization of public health, an organization separate and apart from any other service, devoting its extra time to public health work, should be created by Congress. It should be endowed with such powers as are consistent with the Constitution and presided over by a competent member of the medical profession, with headquarters in Washington. Continuing, he said:

"To draft a bill to provide for the creation of such an organization that will meet with the approval and enlist the support of the great majority of those interested in and affected by such legislation is undoubtedly one of the most difficult tasks that any body of men can undertake. No body of men, in my judgment, is liable to entertain a multiplicity of views concerning such a matter as the medical profession. Physicians as a class do their own thinking. In their active professional lives they are obliged to reach conclusions for themselves, and each one reasons from his own standpoint, influenced more or less by his own experience and environments, and of necessity different conclusions are naturally reached.

"No doubt this lack of unanimity among the promoters of this proposed legislation has been one of the chief reasons for the delay on the part of Congress in enacting a law to create such an organization. A bill has been prepared—the Spooner Bill—and it is the

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product of years of study and experience in sanitary administration and constitutional law. Its strongest features are along educational lines. Its aims are to establish a far-reaching and substantial system of sanitation, but executive as well. Its source of executive power is with the people, as each State and Territory has a voice in its administration. Its executive officer is to be Commissioner of Public Health, a physician of experience and qualification, appointed once in six years by the President, thus removing the office, as far as possible, from any danger that might result from a political appointment, the term of which holds only during the President's term. The fears that have been entertained by some that this commission would be a political organization are purely imaginary. It is as far removed from political influences as it is possible to make an organization for such service. The second executive arm of this commission consists of an executive committee, composed of nine members, including the commissioner. This body has power to make and unmake rules and regulations at will. The advisory council, so termed, composed of a representative from each State and Territorial Board of Health, is one of the strongest and most important features of the measure. It is based upon our principle of government, 'a government of the people.' No public health service in this country can ever be satisfactory under a 'one-man' rule."

The following officers were elected for the ensuing year: President, Dr. C. O. Probst, of Ohio; Vice-President, Dr. Henry Mitchell, of New Jersey; Secretary, Dr. G. T. Swartz, of Rhode Island; Treasurer, Dr. J. A. Egan, of Illinois.

Following the meeting of the Conference, the American Medical Association met at Atlantic City. I remained there in order to attend the section on State Medicine and Hygiene of this great Association. This section had before it many questions of deep sanitary interest. Water supplies and disposal of sewage were thoroughly considered and discussed. In addition to these subjects the question of tuberculosis was considered in one or two of its phases. The smallpox situation as it has existed for the last three years and at the present time was also discussed and thoroughly considered. This section of the American Medical Association is well attended and is one of the strongest sections. I had the honor of being selected Secretary of this section for the

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ensuing year. The American Medical Association will meet in 1901 at St. Paul, while the Conference of State and Provincial Boards of Health will meet wherever the American Public Health Association meets, selecting two days immediately preceding the meeting of the Public Health Society.

ELKHART AND SOUTH BEND.

On June 14 I went to Elkhart on account of a supposed case of smallpox. Upon arrival and investigation the case was found to be chickenpox. The patient was a boy nine years old. All precautions, however, had been taken, as if the case were smallpox, which is in accordance with the rules of the State Board of Health.

Being near South Bend, I visited that place in order to confer with the health authorities in regard to sanitary matters and make, as it were, a sanitary call. The City Health Officer and also the County Health Officer were met and sanitary matters of St. Joseph County and the city of South Bend were thoroughly canvassed. Both of these officers report that they received from their respective Boards full and most satisfactory support. There have been no epidemics in St. Joseph County during the past year.

MARION.

On account of telephone message from Dr. John Forrest, of Marion, I visited that city June 18 to consider with Health Officer Powell the smallpox situation. With Dr. Powell I visited the infected district near Jonesboro. In one family we found four cases of smallpox. There could be no mistake in the diagnosis. The disease had been brought home to this family by a brother of the householder. This brother had been down in Kentucky. The cases at his house all recovered. With Dr. Powell I visited five places in all and in every place found smallpox. Numerous vaccinations were performed and advice and precautions freely given to the people of the infected neighborhood. The management of the situation was good in every respect and no suggestions were in consequence made. I have since learned that all the cases we visited have recovered and there has been no extension of the disease.

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FORT WAYNE.

On June 28 I visited Ft. Wayne in order to confer upon Health matters with the Health Officer of the county, and also to read a paper on hygiene before the Allen County Medical Society. The situation was thoroughly understood by local authorities, and I found I could make no suggestions, but could approve and uphold what had been done. My paper before the County Society was entitled, "Contagious Diseases in Indiana." It was well received and a vote of thanks given me. There were also resolutions passed approving the work of the State Board of Health and extending the work of the society and offering its aid.

SCHOOLHOUSES.

I am glad to be able to report that in many places where new schoolhouses are being built sanitation is being observed. In Allen County three schoolhouses have recently been constructed and the sanitary features were prescribed by Dr. Proegler, County Health Officer. In Owen County one trustee readily agreed to build his schoolhouse in accordance with proper sanitary principles, but a second trustee refused to do so. The County Superintendent unfortunately sustained this trustee. Dr. Cox, Health Officer of Owen County, now proposes to ask for a mandate to compel sanitary construction. In preparation for court action, Dr. Cox asks that the State Board of Health issue a special order as to sanitary principles which shall be observed in constructing all new schoolhouses. In accordance with this request I have prepared the following, which I recommend to be finally passed as rules and served on all trustees and school authorities:

Orders of the Indiana State Board of Health to Township Trustees directing specific features in the construction of schoolhouses necessary to secure sanitary conditions, passed July 13, 1900.

Site.—The building site for all schoolhouses shall be dry, with such drainage as may be necessary to secure and maintain a dry and healthy building; shall be at least 1,000 feet distant from any slaughterhouse, rendering or fertilizing establishment, stagnant pools of water, disturbing noises or any unsanitary conditions whatever.

School Buildings.—If the building is brick, it shall have a stone foundation; or the foundation may be brick provided that a layer of slate, stone or other impervious material be interposed above the ground line. Cellars or basements shall be thoroughly drained, ventilated and lighted. All

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two-story schoolhouses shall be provided with a dry, well-lighted, well-ventilated basement under the entire house, and shall be heated by a furnace or furnaces, or indirect steam heat. The floors of all schoolhouses shall be raised at least three feet above the ground level, and in the case of one-room schoolhouses the foundation shall be solid, of either brick or stone, and have proper ventilation beneath the house. Heaters of all kinds and for all schoolhouses shall take air from outside the building, and, after heating, introduce it into the schoolroom from a point not less than six nor more than nine feet from the floor, and said heaters shall be capable of maintaining a uniform temperature throughout each room of 72 degrees during zero weather. In each room there shall be not less than fifteen square feet of floor space for each pupil; there shall be ventilating ducts of ample dimensions to carry the foul air from each room, changing the air in each room at least every twenty minutes; said ducts to remove foul air shall start from a point not to exceed two feet above the floor of the room, and shall be on the same side of the room as the hot air opening. Fresh air shall be supplied to each room and to each heater from outside through a duct or ducts of sufficient capacity to admit of a change of air every twenty minutes. Light shall be admitted from only one side of schoolrooms, the window area being at least one-sixth of the floor area, and windows shall extend to within at least one foot of the ceiling, and be provided with adjustable curtains. The walls shall be either painted or tinted some neutral color, as blue or green.

There shall be separate entrances to one-room schoolhouses for the sexes. Said entrances shall open into vestibules, and from the vestibules doors shall open into the schoolrooms, and from the schoolrooms doors shall open into two separate cloakrooms for the sexes. Provisions shall be made for warming the cloakrooms, and ventilating ducts opening near the floor shall be provided for proper ventilation.

Blackboards shall be preferably of slate, but, of whatever material, shall be a dead black. The desks shall be so arranged as to permit the light to fall over the left shoulders of the pupils.

The water supply shall be from a driven well or other approved source, with proper drainage to prevent mud or slop. Only stout, smooth glass drinking cups shall be used. Water buckets and tin drinking cups are forbidden.

Decent and proper outhouses shall be provided for the sexes, with good dry walks leading thereto, and screens or shields shall be provided for all outhouses to further modesty and decency. Outhouses shall be kept clean and decent at all times, and the boys' outhouses shall have, in addition to the ordinary privy arrangement, a special urinal, arranged with stalls and with troughs or conduits of galvanized iron draining into the vault or to other suitable point. The privies shall be supplied with stalls each for one person.

All of the above particulars of sanitary construction shall be according to the approval of the State Health Officer or the Secretary of the County Board of Health of the county wherein the schoolhouse is built, and all secretaries of County Boards of Health are commanded to see to the enforcement of this order.

T. HENRY DAVIS, President.
J. N. HURTY, Secretary.

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CORRESPONDENCE WITH THE ATTORNEY-GENERAL.

April 9, 1900.

Mr. Wm. L. Taylor, Attorney-General:

Dear Sir—Dr. J. H. Alexander, Secretary of the Decatur County Board of Health, living at Greensburg, writes us officially that the County Commissioners have refused to promulgate the health rules of the State Board of Health, as commanded by the law. He also reports that the County Council has refused to make an appropriation to pay for the same. As in the instance of Union County, do you not think that it would be well for you to write a letter to the authorities of Decatur County, advising them to comply with the law? If the rules are not promulgated and enforced in any county, we are, of course, without a basis upon which to proceed in the evennt of an epidemic of smallpox or other disease.

Very truly yours,

SECRETARY STATE BOARD OF HEALTH.

April 10, 1900.

Secretary State Board of Health:

Dear Sir—I advise in the case of the Decatur County Board of Health, as I did in the Union County, that you yourself take it up directly with the County Commissioners and the County Council, explaining the matter, and ask them to kindly make appropriations to carry out the law.

It will not be necessary, as I understand it, to have these laws published every year, but only once, and after that only modifications of the law. If this is correct, explain this to them, so that they will understand that this will not be repeated each year. Explain to them the necessities therefor, and ask them to assist you in enforcing the health rules.

The probability is that the matter has not been explained to them fully.

Very truly yours,

W. L. TAYLOR.

April 7, 1900.

Mr. Wm. L. Taylor, Attorney-General:

Dear Sir—I enclose herewith a letter from Mr. Evans, County Attorney of Union County. Please note Mr. Evans' suggestion that as Attorney-General you write a letter to the Board of Commissioners and County Council of Union County. Until the rules of the State Board of Health are promulgated in Union County, the health authorities have little or no power except that which is given in general terms in the statutes.

Very truly yours,

SECRETARY STATE BOARD OF HEALTH.

Liberty, Ind., March 26, 1900.

Secretary State Board of Health:

Dear Sir—I have done everything in my power to get the County Council to make an appropriation so as to enable our County Commissioners to have the rules and regulations of the State Board of Health pro-

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mulgated as required by law. They positively refuse to make any appropriation. An estimate was made and sworn to and the Council called in session for this purpose, but they refused to recognize the itemized statement and to make any appropriation for said purpose. It is my opinion even if they did our Board of Commissioners would refuse to have the rules published, and hence I would recommend that, if you are still intent on your rules being published, you call the Attorney-General's attention to the above facts, and I believe a sharp letter from him to the above boards would cause them to act.

This letter is personal and strictly confidential. Let me hear from you.

Yours truly,
THOMAS D. EVANS.

April 9, 1900.

Secretary State Board of Health:

Dear Sir—I do not feel that it is either my duty or right to lecture County Boards of Health respecting their duties, as, under the law, I have nothing whatever to do in the premises.

I have no doubt if you would write the County Commissioners a letter setting forth the facts, and plainly stating the necessity for publishing the rules of the State Board, and that it is the plain duty as set forth in the law which the Legislature framed, as well as the great benefit to come therefrom, the County Board would order them published. I doubt if the matter has been fully explained to them. I return Mr. Evans' letter.

Very truly yours,
WM. L. TAYLOR.

July 28, 1900.

Dr. J. N. Hurty, Secretary State Board of Health:

Dear Sir—I have examined your draft of proposed order of the Indiana State Board of Health to Township Trustees, directing specific features in the construction of one-room schoolhouses necessary to secure sanitary conditions, and am of the opinion that such order is within the statutory powers of the Board of Health, and may be enforced in the courts. I have the honor to be—

Very truly yours,
W. L. TAYLOR,
Attorney-General.

May 30, 1900.

Secretary State Board of Health:

Dear Sir—In answer to your letter concerning how far the jurisdiction of health officers in cities and towns extends beyond the corporate limits, I have to say:

The cities of Indianapolis, Evansville, Fort Wayne and Terre Haute are under special charters, by the terms of which it happens that their extra territorial jurisdiction is at this time identical (R. S. 1894, 3794,

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3927, 4077, Acts of 1899, p. 277). By these charters the cities are now given the right to protect water and water courses from pollution within a territory of ten miles from the corporate limits. For the regulation of noxious, unwholesome or dangerous trades, the control of garbage, slops, ashes and other waste or unwholesome material, the control of filthy or unwholesome buildings, the management of and location of cemeteries and the interment of bodies the cities are given an extra territorial jurisdiction of four miles from the corporate limits.

As to other cities of the State, they are (R. S. 1894, 3541) given authority to control drainage and noxious, unwholesome or dangerous trades within two miles of the corporate limits.

Incorporated towns in Indiana have no extra territorial jurisdiction whatever. I have the honor to be—

Very truly yours,

WM. L. TAYLOR,
Attorney-General.

DISCHARGE OF DR. McCULLOUGH, HEALTH OFFICER CLAY COUNTY.

Dr. McCullough was informed of his discharge by this Board at its last meeting, and the auditor of the county was also informed of the action of this Board by the following letters. The correspondence following explains itself:

April 20, 1900.

Dr. F. B. McCullough, Brazil, Ind.:

Dear Sir—This letter is to inform you officially of your discharge from the office of the Secretary of the Clay County Board of Health. The State Board of Health met in regular session Friday, April 6, 1900. Certain charges were preferred against you, concerning which you were officially informed. You were also officially summoned to appear for trial. You did not appear, but totally ignored charges and summons. Your case was called at 4:30 p. m. April 6, 1900, but no one answered, and, the evidence being conclusive that you had failed to answer letters of the State Board of Health, and had failed to make reports as the law commands, you were formally discharged from your office, and the Secretary of the State Board was ordered to so inform you and the Auditor of Clay County. It is the duty of the Auditor, under the law, in case of discharge of a County Health Officer, to appoint a successor to fill out the unexpired term.

Very truly yours,
PRESIDENT AND SECRETARY STATE BOARD OF HEALTH.

April 20, 1900.

Mr. Samuel Stigler, Auditor Clay County, Brazil, Ind.:

Dear Sir—The statutes of 1899, Chapter XVI, Section 8, empowers the State Board of Health as follows:

"The State Board of Health shall have power to remove at any time any County, City or Town Health Officer, for intemperance, failure to

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collect vital statistics, obey rules and by-laws, keep records, make reports, or answer letters of inquiry of said Board of Health concerning the health of the people. Such removal, however, shall not be made until five days' notice of the charge or charges against such Health Officer shall have been mailed him, stating a time and place for hearing by the State Board of Health, not less than one week later than the time of mailing such notice to such Health Officer. In case of death or removal of any Town, City or County Health Officer, the vacancy thereby created shall be immediately filled by the Mayor of the city or the County Auditor, as the case may be, and such appointee shall hold office for the unexpired term of the Health Officer whose place he takes."

Under the powers thus conferred, the State Board of Health had occasion to act in the case of Dr. F. B. McCullough, Secretary of the Clay County Board of Health. Dr. McCullough refused or neglected to answer letters from the State Board of Health, and also refused or neglected to make reports. He was several times warned, and finally, on March 2, 1900, Dr. McCullough was formally summoned to appear before the State Board of Health on April 6, 1900, at Indianapolis, and there answer to the charges above given. Dr. McCullough did not appear, nor was any appearance made for him. Accordingly, after full consideration of the evidence, the State Board of Health passed unanimously the following order:

Ordered—That Dr. F. B. McCullough, Secretary of the Clay County Board of Health, living at Brazil, Ind., against whom charges, as in the records given, have been filed by the Secretary of the Board of Health on this, the 6th day of April, 1900, being the day set for hearing his defense of said charges, and he, having failed to respond in person or otherwise, is hereby summarily discharged from the office of said Clay County Board of Health, and the Auditor of the county shall be informed by the Secretary of the State Board to appoint a successor for the unexpired term. Date of discharge, April 6, 1900.

You will, as ordered by statute, appoint a new officer as successor to Dr. McCullough, and send his name, with your official letter of appointment, to the State Board of Health.

Dr. McCullough has been formally and officially informed of his discharge.

Respectfully,

SECRETARY STATE BOARD OF HEALTH.

Brazil, April 24, 1900.

Secretary State Board of Health:

Dear Sir—You are hereby notified that I have this day appointed Dr. J. H. Carson as Secretary of the Clay County Board of Health to fill the vacancy occasioned by the removal of Dr. F. B. McCullough.

Very respectfully,

SAMUEL M. STIGLER.

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Brazil, Ind., April 26, 1900.

Secretary State Board of Health:

Dear Sir—In the matter of the application of Dr. McCullough for a rehearing of the charges against him, we desire to say that there is no question but that the Board has a legal right to grant him a rehearing. It is a power inherent in any board or tribunal clothed by statute with the power to remove an officer, to grant a rehearing, for cause, to an officer discharged by such board or tribunal. The common law, usage, justice and right would sustain you in such course, and we hope the Board will give him an opportunity to be heard, by reinstating him and fixing a day for the rehearing.

Respectfully,
HOLLIDAY & HORNER.

State of Indiana, Clay County, ss.:

Before the State Board of Health, State of Indiana.

In the matter of the charges against Dr. F. B. McCullough, Secretary of the Board of Health of Clay County, Indiana.

Petition for rehearing.

Comes now the said F. B. McCullough and prays the State Board of Health for a rehearing of the charges filed against him before said Board for the following reasons, to which he makes affidavit:

That a few days before the 6th day of April, 1900, the day such charges were set for hearing before the State Board, which in the line of duty as Secretary of the Board of Health of such county, and looking after cases of smallpox in the extreme south part of the county, he contracted a severe cold, resulting in an attack of grip, from which he was suffering on April 6, the day set for hearing of the charges against him before such State Board. That said McCullough fully expected up to the day of the hearing that he would be able to attend the meeting of such Board, but that on April 6 he was still suffering more severely than before, from the grip, and unable to leave his home and bed. That he procured his son, C. J. McCullough, on April 6, at about 2:30 p. m., and about one-half hour before the hour set for the hearing of his case, to call up Dr. Hurty, Secretary of the State Board of Health, over the long distance telephone, and inform him of his sick condition and his inability to attend the meeting of such Board at that time, and ask that another day be fixed for the hearing of such charges. That his son did so call up Dr. Hurty, at such time, and so informed him and made such request, but from some misunderstanding the case was not postponed, but a hearing was had on April 6 in the absence of affiant. Affiant further says that he has a meritorious defense to the charges against him in this: That he answered all letters directed to him by the State Board and its officers which came to his hands as promptly as was possible, and made all reports required of him by law; that if his answers to any letters or if any report required of him failed to reach the Board, or the Secretary, it was no fault of his; that if given a hearing, he will make proof to the satisfaction of the Board that he has discharged his duty and mailed reports required of him and answered all letters received by him, and has in every way discharged

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his duty faithfully, and is wholly ignorant of the manner in which any letter or report may have miscarried. He further says that it has always been his earnest desire to faithfully and promptly discharge every duty. He therefore asks a rehearing of his case.

F. B. M'CULLOUGH.

Subscribed and sworn to before me, this 26th day of April, 1900.

CHAS. L. MACE,
Clerk Clay Circuit Court.

State of Indiana, Clay County, ss.:

Before the State Board of Health of Indiana.

In the matter of the charges against F. B. McCullough, Secretary of the Board of Health of Clay County, Indiana.

Affidavit of C. J. McCullough in support of motion for rehearing.

C. J. McCullough, being duly sworn, on his oath says that he is son of Dr. F. B. McCullough, and has acted as his secretary in matters pertaining to his official duties as Secretary of the Board of Health of Clay County; that on the 6th day of April, 1900, his father was suffering from an attack of grip resulting from a severe cold contracted by him while in the line of his duty as Secretary, going from house to house, in very inclement weather, twenty-five miles from home, looking after smallpox patients; that his father fully expected to be able to attend the meeting of the State Board, but that on the morning of the 6th he became worse, and during such day was confined to his home and bed; that at the request of his father he called up Dr. Hurty, Secretary of the State Board of Health, over the long distance telephone at 2.38 p. m., which was before the hour set for the hearing of the charges against his father, and told Dr. Hurty that his father was sick and unable to attend at that time, but would attend at the earliest day that he might be able and that might be fixed for his hearing. The affiant says that his father has a meritorious defense to the charges against him, which charges were, as he understands them: First, that he "failed to answer letters;" and, second, that he "failed to make reports as the law commands." He says that it is possible that the letters and reports may have miscarried, but that, to his certain knowledge, his father answered all letters which came to his hands as promptly as was possible and made all reports required by law; that his father was away from home much of the time on official business pertaining to his office, occasioned by the smallpox epidemic in the south part of the county, which possibly caused delay in answering letters in some instances; that, if his father is given a rehearing of this matter, he will be able to show the Board that it was always his desire to faithfully discharge his duty in every way, and if any letters or reports failed to reach their destination it was not his fault.

C. J. McCULLOUGH.

Subscribed and sworn to before me this 26th day of April, 1900.

CHAS. L. MACE,
Clerk Clay Circuit Court.

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DR. GINN.

The physicians of Elwood who preferred charges against Dr. Ginn, Health Officer of Elwood, ask that the case be reopened and that the former petition be admitted in the new proceedings. I give here letter from Dr. Millikan, then follows former petition, and after this eight affidavits sustaining the charges. It is for the Board to say whether or not the former petition will be accepted for a rehearing of the case.

Elwood, Ind., June 21, 1900.

Dear Doctor—In regard to the affidavits left at your office yesterday by Dr. Mendenhall, we desire to say: That we want the former petition, which you have and which is signed by a majority of the physicians of Elwood, introduced as evidence along with the affidavits filed with you yesterday. I refer to the Dr. Ginn trial. The other time we received no notice. Will you please notify me at once when the Board will meet? We may want to file other affidavits if we can find our party in time. I trust you may answer promptly, and that, when the time of trial comes, you may give the matter the earnest consideration that the case is really entitled to.

Yours truly,

J. H. MILLIKAN.

Elwood, Ind., June 20, 1900.

To the Honorable Board of Health of the State of Indiana:

Gentlemen—We, the undersigned, citizens of the city of Elwood, respectfully petition your honorable body for the removal of J. F. Ginn, M. D., the present Secretary for the Board of Health of the city of Elwood, for the following grievances:

First. For failure to obey rules and by-laws.

Second. For incompetency.

Third. For unprofessional conduct toward his fellow-practitioners.

Fourth. For altering, amending or suggesting change of treatment of attending physicians, and

Fifth. For failure to compel retention of members of families in quarantine districts.

Signed by Philip C. Stock, M. D.; C. B. Cotton, S. W. Edwins, F. F. Mendenhall, M. D.; T. O. Armfield, M. D.; W. H. Hopenrath, M. D.; C. N. Suttner, M. L. Ploughe, M. D.; A. W. Tobias, M. D.; John Q. Garner, C. V. Newcomer, M. D.

No. 1.

State of Indiana, Madison County, ss.:

Comes now John P. Yohe, Maud Yohe, Emma Yohe, Ollie Elmore, etc., and say:

That in March, 1899, Dr. Wm. Hopenrath was called in our family to treat two of the children; that he said the children had the diphtheria,

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and reported the case to Dr. Ginn, the Health Officer, who came and quarantined the house; that Dr. Ginn examined the children and said that they were being neglected. He suggested a different line of treatment from that of Dr. Hopenrath, and asked that Dr. Suttner be employed to take charge of the cases at once. This was on the 24th day of March, 1899. As the result of Dr. Ginn's advice, Dr. C. N. Suttner was called to treat the cases. One of the children died, and, as the treatment was not effectual, Dr. Suttner was dismissed and the remaining case again intrusted to Dr. Wm. Hopenrath.

John P. Yohe, who runs a delivery wagon connected with a meat market, was permitted to go to and from his place of business during the period of quarantine. A strict quarantine was never maintained. This happened in the city of Elwood, Ind. When the card was taken down Dr. Ginn did not disinfect the house, and stated that there had never been any diphtheria in the case.

Signed by Mrs. J. Yohe, Emma Yohe, Maud Yohe, Ollie Elmore, John P. Yohe.

Subscribed and sworn to before me, the undersigned, a notary public, in and for the County and State above, this 23d day of May, 1900.

JOSEPH W. KNOTTS.

My commission expires June 25. 1902.

No. 2.

State of Indiana, County of Madison, ss.:

Comes now Wm. H. Hopenrath, who, first being duly sworn, says: In March, 1899, I was treating in the family of John P. Yohe, in the city of Elwood, Ind., two cases of laryngeal diphtheria. The cases were reported as soon as the cases were recognized and the house carded by Dr. Ginn. Dr. Ginn took the liberty to examine the children and state to Mr. Yohe that the cases were being neglected, and not treated in a manner that would meet with his approval.

This occurred on the 24th of March, 1899. He suggested a line of treatment and recommended another physician, Dr. C. N. Suttner, to take the cases. There had already been a consultant, but Dr. Ginn's conversation with the anxious family resulted in Dr. Suttner being called and subsequently to his dismissal. The effect was unsatisfactory to both Dr. Suttner and myself. In these cases, which were of a very malignant type, a quarantine was not maintained. John P. Yohe, who delivered meat to a market near by, was allowed to go to and from his place of business during the period of quarantine.

This happened in the city of Elwood, Ind.

WM. H. HOPENRATH.

Subscribed and sworn to before me, the undersigned, a notary public in and for the County and State above named, this 22d day of May, 1900.

JOSEPH KNOTTS.

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No. 3.

State of Indiana, Madison County, ss.:

Comes now Chas. C. Henze and Christiana Henze, his wife, who, being duly sworn, say:

That we called Dr. J. H. Millikan on the 26th day of November, 1899, to see our daughter Catherine, and he said that the child had the scarlet fever, and requested us not to allow any children to come to our house.

Dr. Ginn, the Health Officer, came two or three days afterward and put a scarlet fever card up.

Some days later our little boy, Arnold, was taken sick with the same disease as Catherine, and when he was about well we called Dr. Ginn to see if we might take down the scarlet fever card. Dr. James F. Ginn came, and, after examining Arnold's face, he said the child looked like he had the chickenpox, and that we might take the card down within a week if the other children did not take the disease. We told Dr. Ginn at this time that we had disinfected the house, but he asked us no questions as to how we disinfected or what we used to disinfect with, nor any questions about it in any way. Neither did he ask us any questions about the disinfection at any other time, nor did he disinfect the house himself nor send any one to do it for him. We bought our own disinfectant, and what was left we gave to Dr. Millikan. Soon after this visit of Dr. Ginn the other children took the same disease.

The disease which the children had never developed into nor looked like chickenpox.

After all the children had recovered from the disease, we again disinfected the house as best we knew how, and so reported to Dr. Ginn. Again he asked no questions, nor did he send any one or come himself to disinfect the house.

C. C. HENZE,
CHRISTIANA HENZE.

Subscribed and sworn to before me, Joseph Knotts, a notary public in and for the County and State above, this the 2d day of June, 1900.

JOSEPH KNOTTS.

No. 4.

State of Indiana, Madison County, ss.:

Comes now Dr. J. H. Millikan, who, being duly sworn, says:

That on the 26th day of November, 1899, I was called to the house of C. C. Henze to see their daughter Catherine, and I found the child suffering from scarlet fever, and so reported the case to Dr. Ginn, the Health Officer, on the same day I also instructed the family to allow no children to come to the house.

That I was the attending physician, and that I never gave nor was asked to give a certificate to the Health Officer giving permission to remove the scarlet fever card, but that the said card was removed without my knowledge or consent.

That some days after Catherine was taken sick, another one of the children by the name of Arnold was taken sick with the same disease,

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scarlet fever. That Arnold had a typical case of scarlet fever, and at no time did the disease resemble or look like chickenpox; that a physician who would be unable to detect or recognize this case of scarlet fever is not competent to act as Health Officer or practice medicine.

J. H. MILLIKAN.

Subscribed and sworn to before me, Joseph Knotts, notary public in and for the State and county above, this the 18th day of June, 1900.

JOSEPH KNOTTS.

No. 5.

State of Indiana, Madison County, ss.:

Comes now Mrs. Florence Lockridge, who, first being duly sworn, says:

On the 7th day of May, 1899, my little girl Nancy became sick. Dr. W. H. Hopenrath was called the next day, May 8, and said the child had scarlet fever, and that he would have to report the case and have the house quarantined. Dr. J. F. Ginn, in capacity of Health Officer, called May 8, 1899, to card the house. He laughed at the report of scarlet fever made by the attending physician, and said that it was only a case of measles; that Dr. Hopenrath did not know scarlet fever from measles; that he was an enemy of Hopenrath's, and only for that reason would he card the house; that he, Dr. Ginn, did not intend to do Hopenrath any personal harm, but would do him all the harm in a financial way that he could. As a result of Dr. Ginn's advice, we discharged Dr. Hopenrath. We then employed Dr. Ginn to take care of the case, as he had agreed to take it if we would give our consent.

None of the children had the measles at that time, although others had the scarlet fever afterward. Dr. Ginn never disinfected the house, but told me to take the card down when I got ready.

This happened in the city of Elwood, Ind.

FLORENCE LOCKRIDGE.

Subscribed and sworn to before me, the undersigned, a notary public in and for the State and county above, this the 13th day of June, 1900.

JOSEPH KNOTTS.

No. 6.

State of Indiana, Madison County, ss.:

Comes now Wm. H. Hopenrath, who, first being duly sworn, says:

On the 8th day of May, 1899, Mrs. Lockridge called me to see a child in the family of Lawrence Doyle, in the city of Elwood, Ind.

I examined the child and diagnosed scarlet fever. The case was reported immediately to Dr. Ginn, who quarantined the house, and, as per affidavits of the Doyle family, interfered in the case in a manner that caused the family to lose confidence in my ability to treat the case, and, as a natural consequence, resulted in my dismissal.

That the child had been sick on the 7th of May, and at the time I made my visit, on the 8th, had a temperature of about 103 F. and a rash

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covering more or less the whole body. The rash had an appearance not unlike that produced by the application of mustard. There was redness and pain in the throat, but no anginosed condition. There was also a slight irritation of the kidneys. In all, a typical case of scarlet fever in one of its mild forms.

That Dr. Ginn diagnosed the above case as measles, as shown by the affidavits of Lawrence Doyle and Crestine Doyle, which affidavits also show that measles never did develop in this case nor in any of those that followed.

That Dr. Ginn has shown an incompetency to differentiate between the two diseases, and has also shown a malicious contempt in the case reported. This happened in the city of Elwood, Ind.

WM. H. HOPENRATH.

Subscribed and sworn to before me, the undersigned, a notary public in and for the county and State above, this the 22d day of May, 1900.

JOSEPH KNOTTS.

No. 7.

State of Indiana, Madison County, ss.:

Comes now Lawrence and Crestine Doyle, who, first being duly sworn, say:

That on the 8th day of May, 1899, Dr. W. H. Hopenrath was called in the family of Lawrence Doyle to treat a sick child. That he pronounced the ailment scarlet fever, and that the Health Officer, Dr. J. F. Ginn, after being notified, came and quarantined the house the same day.

That when Dr. Ginn quarantined the house he said there was no scarlet fever in the case, but that on the next day they would have a nice case of measles; that he would not card the house only that the attending physician was an enemy of his and might make him trouble.

Dr. Ginn ridiculed the idea of scarlet fever, and did not disinfect the house in any manner nor at any time. He simply laughed at what the family physician had said. He instructed us to take the card down when we got ready. Measles never developed in the case at any time.

Some of the other children, however, contracted the same disease afterward, but all recovered.

That, being made to believe that Dr. Hopenrath had failed to recognize the disease, we never called him in the case again.

That this took place in the city of Elwood, Ind.

Witness to signature,

CRESTINE DOYLE,
LAWRENCE DOYLE,
J. H. MILLIKAN.

Subscribed and sworn to before me, the undersigned, a notary public in and for the county and State above named, this the 22d day of May, 1900.

JOSEPH KNOTTS.

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No. 8.

State of Indiana, County of Madison, ss.:

Comes now Leona Easter, who, first being duly sworn, says:

That Charley Brumfield, who boarded at Moore's boarding-house, at 1901 S. J Street, in the city of Elwood, Ind., took sick with the initial fever of smallpox on Sunday, May 27, 1900; that the eruption began on Tuesday, May 29, and was completed on the following day, Wednesday, May 30.

That on Friday, June 1, at 7 p. m., the house was quarantined by the City Health Officer, Dr. J. F. Ginn; that during the period of six days of Brumfield's sickness preceding quarantine, all the inmates of the boarding-house were exposed more or less to the infection.

That at noon on Friday, after such exposure, Willis Miller was dismissed and allowed to leave the premises by Dr. J. F. Ginn; that Harry Newman and Samuel Recobs were also dismissed on Friday evening.

That on Saturday morning, June 2, Dr. Ginn gave Isaac Bales permission to leave the premises, and also gave him a written statement certifying that he was free from contagious or infectious disease.

That these permissions were given by Dr. Ginn without certificates from the attending physician that these men were free from infection, and that, when complaint was made by neighbors, Dr. Ginn made no effort to quarantine the suspected cases.

That ample opportunity for infection in these cases had been afforded, and that unnecessary risks have been taken by spreading a very contagious and loathsome disease.

LEONA EASTER.

Subscribed and sworn to before me, the undersigned, a notary public in and for the county and State above, this the 28th day of June, 1900.

JOSEPH KNOTTS.

EMBALMERS' EXAMINING BOARD.

The Embalmers' Examining Board, appointed by the Indiana State Board of Health on July 14, 1899, for the term of one year, hereby and herein submit to the said State Board of Health their final report of the business transacted during that term of office, as follows:

The Board met at Ft. Wayne, Ind., September 7, 1899, and organized with officers as follows: J. H. Fetter, Chairman; J. N. Frist, Secretary; O. G. Davis, Treasurer; J. H. McCully, Official Grader of Manuscripts. They then adopted a new set of rules governing examinations, a copy of which has been filed in the office of the State Board of Health.

There have been held three regular examinations in the State during this term—one at Ft. Wayne, September 7, 1899, at which sixteen applicants were examined; one at Indianapolis, January 10, 1900, at which thirty applicants were examined, and one at Indianapolis, May 25, 1900, at which twenty-eight applicants were examined.

There were two special examinations held—one by J. N. Frist at Clinton, at which three applicants were examined, and one at Logansport by J. H. McCully, at which four applicants were examined.

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A license was also issued by Prof. C. A. Renouard, of the New York School of Embalmers, making in all a total of eighty-two applicants examined, seven of whom had failed at previous examinations, and were thereby entitled to these examinations free of charge.

The Treasurer's report for the year is hereunto attached and made a part of this report.

Respectfully submitted,
EMBALMERS' EXAMINING BOARD,
By J. N. FRIST, Secretary.

Indianapolis, Ind., July 12, 1900.

O. G. Davis, Treasurer, in account with the Embalmers' Examining Board for the State Board of Health Dr.:

To balance on hand, July 14, 1899	$469 29
To fees received for examination September 7, 1899	85 00
To fees received for examination January 10, 1900	155 00
To fees received for examination May 25, 1900	135 00
	$844 29

Cr. by expense account Board as per vouchers, September 7, 1899	$98 15
Cr. by expense account Board as per vouchers, January 10, 1900	123 07
Cr. by expense account G. S. Carter, clerical work, February 5, 1900	5 06
Cr. by expense account G. S. Carter, clerical work May 25, 1900	5 96
Cr. fees refunded J. H. Guild, May 25, 1900	5 00
Expense account Board as per vouchers, May 25, 1900	115 75
Expense account Board as per vouchers, July 12, 1900	111 91
	$464 90
Balance in treasury, July 12, 1900	379 39

Respectfully submitted,
O. G. DAVIS, Treasurer.

To the Indiana State Board of Health:

The Indiana Funeral Directors' Association, by its committee duly appointed and authorized to act for said Association, said committee being the Embalmers' Examining Board for the State Board of Health, respectfully prays that said State Board of Health amend or exert their influence to have amended their rules governing the transportation of dead bodies by inserting between the twentieth and twenty-first words of said sentence the following words: "Embalmed by arterial and cavity injection with an approved disinfectant," and by striking out the word "thirty" in the same sentence and substituting therefor the word "forty-eight."

Also amend or cause to be amended the second sentence by substituting the word "forty-eight" for the word "thirty" in the said second sentence.

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Also amend the third and last sentence by inserting the words "cotton wrapping and" between the twenty-fourth and twenty-fifth words of said last sentence.

That the entire rule may then read as follows:

"The bodies of those dead of diseases that are not contagious, infectious or communicable may be received for transportation when embalmed by arterial and cavity injection with an approved disinfectant, incased in a sound coffin or casket and a strong outside wooden box, provided they reach their destination within forty-eight hours from time of death. If body can not reach its destination within forty-eight hours from time of death, it must be prepared for shipment by filling arteries and cavities with an approved disinfectant, washing the exterior of the body with the same, stopping all orifices with absorbant cotton and enveloping the entire body in a layer of cotton not less than one inch thick, and all wrapped in a sheet and bandaged and incased in an air-tight coffin or casket. But when the body has been prepared for shipment by being thoroughly disinfected by an embalmer holding a certificate as in Rule II, the cotton wrapping and air-tight ceiling may be dispensed with."

All this we ask for the following reasons, to wit:

First. The shipment of bodies a thirty hours' journey without embalming of any kind admits of bodies that die in such condition as to speedily become putrid, even though the cause of death be noncommunicable, being shipped in such condition that they become offensive and dangerous to public health before the expiration of thirty hours. These same bodies often lie several hours at destination, before interment can be made, under conditions that render embalment at that time impossible, whereas embalment could easily have been accomplished before shipment and the body thereby have been rendered safe for a forty-eight-hour journey and interment, even though the work had been done by a nonlicensed operator. Therefore, we hold that a body embalmed by any person by arterial and cavity injection is in a safer condition at forty-eight hours than one not embalmed at all at thirty hours.

Second. A body dead of a noncommunicable disease, embalmed and disinfected by an operator holding a certificate, as in Rule II, is safe without the cotton wrapping, and an item of expense would be thereby saved the purchaser of undertaker's wares by omitting this superfluous restriction.

Therefore, we respectfully submit this petition and ask your earnest effort to secure this amendment.

EMBALMERS' EXAMINING BOARD
STATE BOARD OF HEALTH,
By J. N. FRIST, Secretary.

July 12, 1900.

To the Honorable State Board of Health, Indianapolis, Ind.:

Dear Sirs—The term of office of the Embalmers' Examining Board for the State Board of Health expires July 14, 1900, and the Executive Com-

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mittee of the State Funeral Directors' Association hereby recommends for appointment on said Board for ensuing year:

J. H. McCully, of Idaville, Ind.
M. F. Parsons, of Greensburg, Ind.
O. G. Davis, of Williamsburg, Ind.
A. V. Weisenger, of Mt. Vernon, Ind.
W. H. Hiss, of Plainfield, Ind.

Yours respectfully,
EXECUTIVE COMMITTEE INDIANA
FUNERAL DIRECTORS' ASSOCIATION,
By M. F. PARSONS, Chairman.

Bulletins, pamphlets and leaflets received during the quarter:

Bulletins—

Ohio Sanitary Bulletins	4
Monthly Bulletins of Rhode Island	2
Public Health Reports	14
Sanitary Bulletin, Concord, N. H	1
Bulletins North Carolina Board of Health	2
Bulletin, Havana, Cuba	1
Board of Health, State of New Jersey	1
Iowa Health Bulletin	1
Department Public Health, San Francisco, Cal	2
Health Department, City of St. Louis, Mo	5
Monthly Reports of Department of Health, City of Buffalo	2
State Board of Health, New York	2
Weekly Reports of City of New York	3
Reports of Department of Health, city of Rochester	2
Monthly Bulletins, State Board of Health, Connecticut	3
U. S. Department of Agriculture, Illinois Section	3
U. S. Department of Agriculture, Farmers' Bulletin	1

Pamphlets—

Monthly Reports of Public Health, city of Denver, Colo	3
Board of Health, city of Chicago	3

Leaflets—

Health in Michigan	13
City of Portland, Me	2
Monthly Reports, Board of Health of Ontario	2

Marion, Ind., July 12, 1900.

To the Honorable State Board of Health:

Gentlemen—I beg leave to report that in pursuance of the order of this Board, I left Marion on May 18 as a delegate to the State and Provincial Boards of Health of North America.

Arriving in Philadelphia, we were met by representatives of the H. K. Mulford Company, and invited to visit their vaccine farm and laboratories. The invitation was accepted, and the greater part of two days was spent in investigating the farm and the preparation of vaccine virus.

The vaccine laboratory of the H. K. Mulford Company is under the

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immediate supervision of Dr. Elgin, a conscientious and careful scientist, a man especially well qualified to fill the responsible position he occupies, and the product of the laboratory is simply above criticism.

From Philadelphia we went directly to Atlantic City and attended the session of the Association. There is no question in my mind as to the benefit of keeping up this association. It could not help but be of great advantage to meet with men—practical men—from all over the country engaged in the same kind of work. The details of how they are accomplishing this work in their locality is frequently a solution of a problem with which we are confronted, and vice versa, the interchange of ideas and facts as to details being of great advantage to all.

Leaving Atlantic City, I went over in Massachusetts and spent about four days in Fall River, where they were having a number of cases of smallpox. The sanitary arrangements, system of isolation, disinfection, etc., used there indicate that Massachusetts is among the leading States of the Union along this line.

In concluding this report, I wish to say that I believe that the time spent on this trip has been of great value to me and will enable me to be a more useful member of this Board. Respectfully,

J. H. FORREST.

The following bills were allowed:

T. Henry Davis, attending Board meeting	$5 00
J. H. Forrest, attending Board meeting	6 20
J. H. Forrest, expenses attending Conference of State and Provincial Boards of Health	125 40
E. D. Laughlin, visiting smallpox district	4 55
E. D. Laughlin, attending Board meeting	10 67
J. N. Hurty, incidentals and attending Conference of State and Provincial Boards of Health	197 01
Western Union Telegraph Company, telegrams	2 91
New Long Distance Telephone Company, toll	2 70
New Telephone Company, rent	10 00
U. S. Express Company, expressage	43
J. E. Shideler, acting postmaster, postage	50 00
Wm. B. Burford, printing and stationery	137 12
Grace S. Carter, postage and drayage	3 30
H. Hough & Co., plates	5 84
H. Sterns, soap	1 65
Mary J. Burke, transcribing and reporting State Conference	25 00
Bowen-Merrill Company, books	1 50
Central Union Telephone Company, toll and rental	30 35
Parke, Davis & Co., vaccine virus	4 38
Interstate Press Clipping Bureau, clippings	9 00
Total	$633 01

Adjourned.

Approved October 5, 1900.

T. HENRY DAVIS, *President.*

J. N. HURTY, *Secretary.*

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FOURTH QUARTER.

OFFICE INDIANA STATE BOARD OF HEALTH,
October 5, 1900.

Present: Drs. Davis, Forrest, Laughlin and Hurty.
Dr. Davis in the Chair.
Meeting called to order at 3 p. m.
Minutes of last meeting read and approved.

SECRETARY'S REPORT FOR QUARTER ENDING SEPTEMBER 30, 1900.

During the quarter 1,060 letters were received and 1,246 were written. The monthly vitality statistics have been collected, tabulated, analyzed and published in the Monthly Bulletin. We have to register for the quarter 9,274 deaths. The vital statistics of births, sickness and marriages for the third quarter of 1900 are all collected and tabulated. The same statistics for the fourth quarter of 1900 will not be received until October 20.

The Secretary at his own expense analyzed seven samples of water for the following persons:

Dr. B. E. Miller, Albion, 1 sample.
Dr. J. T. Dickes, Portland, 1 sample.
Mr. Irwin Thomas, Bellemore, 1 sample.
Dr. N. B. Dunham, Marion, 1 sample.
Dr. Geo. Squire, Brookville, 1 sample.
Mr. G. W. Martin, Ferndale, 2 samples.
All but one of these samples were found to be polluted.

The number of samples of sputum examined was 22, of which 17 were positive and 5 were negative.

The number of diphtheria cultures examined was 11, of which 2 were negative and 9 positive.

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SMALLPOX.

Seventy-five cases of smallpox were reported in Indiana during the year 1900, as follows:

Date.	JULY.	*Number of Cases.*
July 2	Keystone	1
July 4	Lawrence	1
July 5	Rockfield	1
July 6	Michigan City	1
July 9	Lawrence County	4
July 14	Monticello	1
July 14	Frankton	4
July 17	Kirklin	2
July 18	Hammond	1
July 20	Vanderburgh County	2
July 21	Wheeling	4
July 21	Loogootee	2
July 25	Perry County	1

Two deaths from smallpox—Lawrence County 1, Frankton 1.

AUGUST.

August 21	Sullivan County	1
August 21	Jackson County	1
August 31	Perry County	8

SEPTEMBER.

September 1	Logansport	several cases
September 5	Jasper County	8
September 5	Jennings County	1
September 5	Logansport	many cases
September 12	Miami County	1
September 13	Delaware County	11
September 14	Newton County	8
September 15	Jasper County	3
September 15	Jay County	3
September 26	Delaware County	3
	Total	41

One death in Jasper County.

The total number of smallpox deaths for the quarter is 4.

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COMPLAINT OF A TEACHER HAVING TUBERCULOSIS.

The following petition was received September 10:

September 10, 1900.

We, the undersigned, patrons of District No. 2, Brandywine Township, Shelby County, Indiana, object to Warren McDonald being teacher of our school, as he is in an advanced stage of consumption. We hereby appeal to the Board of Health for aid.

Signed by:

JOSEPH ODELL,
WM. W. HUGHES,
LEVI MANN,
CHAS. POPE,
ALBERT SMITH,
J. F. HUGHES.

Dr. Stewart, Health Officer of Shelby County, presented the petition, and he was instructed to examine Mr. McDonald, and if he was found to be afflicted with tuberculosis to so inform the trustee and request his removal, in accordance with the rule commanding that persons so afflicted should not be employed as teachers in the public schools. Dr. Stewart, after examination, pronounced Mr. McDonald not a consumptive, and so also did Dr. F. A. Morrison, President of the Indianapolis Board of Health. Therefore, a letter was written to Dr. Stewart to act accordingly.

DR. GINN.

In accordance with the orders of the Board, issued July 13, the following letters were written to Dr. Ginn, the accused, and Dr. Millikan, accuser, both of Elwood, Ind., and to these letters the appended answers were received:

July 16, 1900.

Dr. J. H. Millikan, Elwood, Ind.:

Dear Doctor—In the matter of the charges against Dr. Ginn: Your letter and recent affidavits, eight in number, together with your former petition, were presented to the Board for its consideration last Friday. In regard thereto, the following order was passed:

Ordered: In the matter of charges against Dr. Ginn, of Elwood, that the Secretary shall inform those interested that the former case against Dr. Ginn is closed, and that if they wish to offer petition for Dr. Ginn's removal, and prefer charges, to accompany affidavits now on file, the matter will be taken up and all parties notified of time and place of trial.

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From the above order, it is plain what you will have to do. The old petition is not accepted and a new one must be presented. As soon as said petition is received, Dr. Ginn will be fully informed of the whole matter and time appointed for trial.

Very truly yours,
SECRETARY STATE BOARD OF HEALTH.

July 16, 1900.

Dr. J. F. Ginn, Elwood, Ind.:

At the last meeting of the State Board of Health, a letter from Dr. Millikan, with eight affidavits accompanying the same, was presented for consideration. Dr. Millikan requested that the former petition against you be accepted and filed as a new charge. This was refused by the Board and directions given that if the physicians of Elwood had charges against you of any kind, they, of course, could present them at any time through a petition with accompanying affidavits. The old case is closed absolutely. No petition has yet been received. If one is received, we will forward you copy of it, also copy of the affidavits supporting it. I notice some of the affidavits already here are from persons whom you presented as your witnesses.

This letter is purely to inform you of the situation, and I presume there will be no opportunity for you to act until you receive copy of the petition and copy of the affidavits.

Very truly yours,
SECRETARY STATE BOARD OF HEALTH.

Elwood, Ind., July 17, 1900.

Secretary State Board of Health:

Dear Doctor—In regard to the Dr. Ginn matters, will say that a number of our physicians being out of the city for their summer vacations, the matter will be delayed for some days, but will not be abandoned.

Respectfully,
J. H. MILLIKAN.

Elwood, Ind., July 18, 1900.

Secretary State Board of Health, Indianapolis, Ind.:

Dear Doctor—Yours of the 16th inst. to hand, and thank you very much for the information contained therein. I am saying nothing to any one, simply letting those of my friends say for me, as the inclosed clipping of yesterday expresses:

We had a hard task, but had the satisfaction of knowing that ours was the only way to meet the situation.

I remain, very fraternally yours,
J. F. GINN.

DR. McCULLOUGH.

In accordance with the order of the Board issued July 13, the following letter was written and sent to Holliday & Horner, attorneys for Dr. McCullough. No reply was received.

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July 16, 1900.

Holliday & Horner, Brazil, Ind.:

Gentlemen—Your letter and petition for rehearing of the case of Dr. McCullough were presented to the State Board of Health at its meeting Friday, July 13. This is the first meeting since your documents were received. In regard to the same, the following order was passed:

Ordered: "That the correspondence concerning the reopening of the case of Dr. McCullough, of Clay County, be received and placed on file."

I am, of course, unable to state what action, if any, will be taken in the future.

Very truly yours,
SECRETARY STATE BOARD OF HEALTH.

THE EMBALMING BOARD.

The gentlemen nominated July 13 to serve for one year on the Embalming Board have all been informed and their acceptance received. They are J. H. McCully, Idaville; M. F. Parsons, Greensburg; O. G. Davis, Williamsburg; H. B. Weisinger, Mt. Vernon; W. H. Hiss, Plainfield.

VISITS DURING QUARTER.

The visits made during the quarter were as follows:

August 14—Poneto.
August 22—Vincennes.
August 24—Lafayette.
August 29—Hope.
September 3—Ekin.
September 4—Terre Haute.
September 8—Jeffersonville.
September 14—Gosport.
September 17—Muncie.
September 28—Vincennes.

Detailed reports are given herewith of the above visits.

PONETO.

August 14.

On August 14 I went to Poneto, Wells County, to attend the Monthly Meeting of the Wells County Medical Society. This was upon invitation. Before the society I read a paper upon "School Sanitation," and in the evening gave a lecture to a popular audience upon general sanitation. About twenty-five physicians were

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present at the meeting, and in the evening the Christian Church was filled with an audience made up of farmers and citizens of the town of Poneto. I am confident the visit resulted in advancing the cause of sanitation in the State.

VINCENNES.

August 22.

On August 22, in accordance with an invitation extended by the Knox County Teachers' Institute, I went to Vincennes to deliver a lecture upon the subject of school sanitation. The institute was attended by about eighty teachers, and in the evening my lecture was delivered to these teachers, together with a large audience of citizens. Almost every phase of school sanitation was discussed and evidently with some effect, for many questions were asked and directions requested. The Vincennes papers gave very favorable notice.

LAFAYETTE.

August 24.

On August 24 I went to Lafayette to meet the City Council upon invitation from the Mayor and the Council Committee on Public Health. Some two years ago I urged the city authorities of Lafayette to pass a health ordinance and to create a Board of Health composed of physicians. This suggestion was fully considered and at last the authorities determined upon action. I addressed the City Council upon the very great importance of looking after the public health, and presented an ordinance which had been carefully written. It is hoped that the ordinance will pass and that Lafayette will enter upon a new era in health affairs.

HOPE.

August 29.

On August 29 I went to Hope, Bartholomew County, in order to inspect schoolhouses which had been reported to this Board as being in a very unsanitary condition. I found that the three schoolhouses, Nos. 3, 6 and 12, Haw Creek Township, were single-room brick buildings. All were without vestibules and all were heated by stoves and ven-

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tilated by windows and doors. Wraps in all these houses had been hung on the walls. At schoolhouse No. 3 there had been much sickness, such as coughs, colds, catarrhs, and also a few cases of typhoid fever, with two deaths. This directed attention to the water supply. It was from a dug well, not over 12 feet deep, and was supplied with a common wooden pump, without any provision being made for carrying away waste water. The water was undoubtedly polluted, and may have been the cause of the cases of typhoid fever named. It was reported to me that many of the children who drank this water were affected with nausea and some of them with diarrhea. The down-spouts from the eave troughs were battered and broken off, and the drip of the water from the roof was rapidly undermining the building at two points. The school yard was overgrown with weeds, and the outhouses, as is usual at country schoolhouses, were an abomination. They were not screened or in any way given proper decent privacy.

School No. 6, called in that neighborhood the "Trotter School," was in a very bad sanitary condition. A farmer near by had used the yard as a hog yard during the vacation. Corn cobs were thick on every hand; the hogs had rooted great wallows in various places in the yard and filth such as belongs to hog yards was visible in every direction. The door had been opened and the chickens had used the schoolhouse for a roosting place. Maps and charts had been torn down and were going to ruin upon the floor. The well was a dug well without any pump, and it was plain that it received surface drainage.

Schoolhouse No. 16 was in a very good state of repair. There was no particular complaint about this building except the general one of coughs, colds and catarrhs prevailing all winter. This will always happen where a schoolhouse is warmed by stoves and ventilated by windows and doors.

I called upon the trustee of the township, Mr. George Moore, and had a long talk with him about schoolhouses and the importance of maintaining good sanitary conditions. He agreed with me on all points, but complained that his County Council kept him tied down so closely that he could do nothing to improve the schoolhouses. I told him of the hogs in the yard at school No. 6, and also of the chickens using the interior of the building and the destruction which had come to the charts and maps. He was sur-

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prised to receive this news and said he would look after the matter without delay.

Upon my return the following letter was written to Mr. Joseph Hornshoe, who is the chairman of the Township Advisory Board.

At Hope I talked with several citizens concerning the bad and unsanitary conditions existing in their township schoolhouses, and among them was the editor of the local paper. They all agreed with me, and I am confident the visit was attended with good results.

Indianapolis, Ind., August 30, 1900.

Mr. Joseph Hornshoe, Hope, Ind.:

Dear Sir—The writer, who is the State Health Officer, visited Hope yesterday in order to inspect the sanitary conditions of your schoolhouses in that region and to advise with the local Health Officer. You are aware the statutes command the State Board of Health to make constant inspections of public buildings and to endeavor to study out means for the betterment of the public health, and that the statutes also give the State Board of Health power to regulate and prescribe the sanitary condition of public buildings. This is merely mentioned to show you that we are not outside of our jurisdiction in making inspection, and you will also understand that our only object is to strive to better matters in all right ways and so to help progress and promote the general happiness. With this explanation permit me to relate that I inspected schools Nos. 3, 6 and 12, and have to state that none of them are in the condition they should be. I noticed at all of these schools there was a dilapidated appearance and they are very dirty, but this, of course, will all be removed by the trustee before school opens; but as chairman of the Township Advisory Board we wish to most earnestly recommend that you direct the trustee to join the Fisher (No. 6) and the Turner (No. 12) schoolhouses. They should be torn down and one new building erected for both districts. This would be a great economy. The Turner schoolhouse yard has been used for hogs, and I was told since that Mr. Turner so used it. I unhesitatingly say that this man is not a good citizen or he would never have thought of turning hogs into a school yard where children, who are the hope of our country, are to be educated. How can we expect children to advance in all that is good and have their elders turn their schoolhouses into hog yards? Mr. Turner surely committed a nuisance and transgressed upon public property and he should be punished for it. It is, of course, your desire to conduct the official affairs of your township with the utmost economy, and this should be the desire of all good citizens. It is principally upon the score of economy that we address you. It is not economy to surround children with conditions which prevent them from studying and progressing as they should, but it is economy to surround them with conditions which aid their progress in their studies and of course in all that is intended in the schools. These remarks are made because I note that your schoolhouses are heated by simple box stoves. It may never have come to your notice that box stoves cause a loss of money to the people through

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the discomfort and ill health they bring upon the children. Those children who sit near a stove in the schoolroom are rendered warm and uncomfortable in cold weather and can not study and progress as they should, and are rendered more liable to congestions and colds when they go out doors. Those children who sit by the windows are cold and chilly, have cold feet, and can not study and progress as they should, and, like the first class, are more liable to colds and congestions when they are out doors. It thus happens that in schoolrooms warmed by stoves the children continually have colds and coughs, suffer from indigestion and nervous disorders, and it is in such schools where diphtheria and scarlet fever and like diseases are continually breaking out. It may be that these diseases have not visited your schools, but that is not the fault of the schools, for all the conditions are there to produce said diseases. Schoolhouses should be warmed with ventilating stoves. These stoves can be purchased from all stove dealers. They are so constructed that they take fresh air from the outside through a pipe beneath the floor, warm this fresh air, project it into the schoolrooms, making the warmth even throughout the whole room. The foul air is removed and carried out of the room by a double jacket around the stove and a pipe reaching into the outer air. This furnishes an even temperature and plenty of fresh air for the children and takes from them surroundings which prevent them from studying and progressing. In this light you will plainly see that it is unbusinesslike, impracticable and extravagant to warm schoolhouses with box stoves. We throw away in Indiana annually a large per cent. of our school money —fully 10 per cent.—in this way. We earnestly hope, for the purpose of saving the people's money and eventually reducing the tax rate, and also principally because of the greater comfort and health of the children, that you will earnestly advocate making one schoolhouse of two rooms take the place of No. 6 and No. 12. Be sure also to demand of your trustee who builds this house that he furnish two well-constructed, properly screened outhouses for both sexes, that he supply good paths leading to these outhouses, and that they be placed as far as possible from each other. This is only a matter of common decency which should be looked after with the greatest diligence.

Feeling confident that you will accept this letter in the spirit of enterprise in improvements in which it is offered, and above all that you will enter heartily into this great betterment and economy for your community, I am,

Very truly yours,
SECRETARY STATE BOARD OF HEALTH.

EKIN.

September 3.

On September 3 I went to Ekin, a small town in the southern part of Tipton County. Several letters had been received from citizens of this town, and lastly a petition signed by about forty came to hand. Although Dr. L. O. Ross, who headed the petition,

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had been several times written to, I nevertheless concluded to heed the petition and see what could be done. Upon arrival at Ekin I found quite a crowd of people gathered, and without delay I proceeded to inspect the schoolhouse. It was an old, dilapidated, one-room frame schoolhouse, built some twenty years ago. The plaster of the ceiling had fallen off and been replaced by ordinary wrapping paper. The windows were broken, there was no vestibule or cloakroom, the desks were old, many of them broken, and none of them the right shape. The schoolhouse was in a very filthy condition. It had originally been provided with foundation boulders at the four corners, and the space between the floor and the ground had been filled with wood work. This wood work had rotted away, leaving great gaps so that the winds and snows could get underneath, and it was noticed that hogs had taken advantage of the circumstances and had made a nest under the schoolhouse. A Mrs. Linthicum told me her child, a girl of about nine years old, frosted her feet last year in the schoolhouse with overshoes on. I learned from Dr. Ross that school was frequently dismissed on account of cold. He also told me that the opening of the school at Ekin always meant an epidemic of coughs, colds and catarrhs among the children. The outhouses were a disgrace—no screens nor shields. It was the unanimous request of the citizens that the schoolhouse be condemned, and many of them stated most positively their children should not go to school in such a building. The building belongs to a joint district, for the town of Ekin is stationed upon the pike which constitutes the boundary line between Tipton County on the south and Hamilton County on the north. The townships concerned are Jefferson Township, Tipton County, Mr. Hinkle, trustee, and Adams Township, Hamilton County, Mr. John Bradfield, trustee.

Upon my return a report was immediately rendered to President Davis and he directed that an order of condemnation be issued, and in accordance with his directions the following order was drawn up and sent to Dr. A. S. Dickey, Health Officer of Tipton County. Herewith in addition to the letter of condemnation is given our letter to Dr. Dickey, and also a letter was written to both Mr. Hinkle and Mr. Bradfield, the two Township Trustees named above:

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ORDER OF CONDEMNATION.

The schoolhouse known as Ekin schoolhouse, No. 13, situated at Ekin, Tipton County, Jefferson Township, Ind., is hereby condemned by the Indiana State Board of Health on account of its unsanitary conditions, being a constant threat against the health and life of the pupils; and it is ordered that said schoolhouse shall be forever abandoned for school purposes.

Any one removing or mutilating this notice will be prosecuted.

Passed by the State Board of Health at Indianapolis, September 7, 1900.

PRESIDENT AND SECRETARY STATE BOARD OF HEALTH.

September 12, 1900.

Dr. A. S. Dickey, Tipton, Ind.:

Dear Doctor—About a week ago, after very urgent solicitations, I visited Ekin, your county, and inspected that awful, dilapidated, unsanitary schoolhouse. I made a report to my Board, describing exactly the situation, and the order of condemnation has been passed, which please find inclosed. The Board directs that either in person or by deputy you take this order of condemnation and tack it on the front door of the schoolhouse and have the same nailed up. We think it would have a better effect if you would do this yourself, but you are a busy man and receive such miserable pay that we suggest very likely it would do for you to make a deputy of Dr. L. H. Ross and ask him to do the work. We have informed the two trustees concerned with this schoolhouse and this procedure means that there will be no school at Ekin until a new schoolhouse is furnished.

If you have any suggestions or information with which you can favor us, we hope you will do so.

Very truly yours,
SECRETARY STATE BOARD OF HEALTH.

September 12, 1900.

Mr. A. D. Hinkle, Trustee Jefferson Township, Goldsmith, Ind.:

Dear Sir—On September 3, on account of an urgent petition signed by twenty or more citizens of Ekin, I visited that place and inspected the miserable, dilapidated and unsanitary schoolhouse existing. According to the orders of this Board I returned and made a written report with recommendations. My report recounted the fact that the schoolhouse at Ekin was frame, was dilapidated and out of repair, was situated upon a low, damp site, had a ceiling made by tacking paper overhead, was heated by a simple box stove, was ventilated by windows and doors, had no vestibule and no cloakroom; there were great cracks in the floor and there was no protection against the cold and bad weather finding its way beneath the schoolhouse. My report further said that the desks were old, worn out, some of them broken, not of proper shape and not varying sizes for the

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various pupils, and that the outhouses were dilapidated and repulsive in every way. The report still further recounted the fact that the citizens of Ekin loudly proclaimed against the schoolhouse; that several children last winter had their feet frostbitten attending school, although they had on overshoes; that diphtheria prevailed to some extent, and that coughs, colds, catarrhs and congestions were frequent and so abundant that many of the pupils have probably been injured for life. I recommended under such awful circumstances that the State Board of Health exercise the power vested in it by the statutes and pass an order of absolute condemnation upon this schoolhouse, and command that the same should be forever abandoned for school purposes. You are hereafter officially informed that the following order of condemnation was formally passed by the State Board of Health at Indianapolis, September 7, 1900, and you are further informed that the Health Officer of Tipton County has been ordered to proceed to Ekin, nail up the doors and windows of this condemned building and place upon the front door our order of condemnation. We are well aware that you understand this situation fully and will agree with us that a new schoolhouse is needed at Ekin. We therefore earnestly hope that you will join with us in this work of securing to the children who attend Ekin Schoolhouse, No. 13, conditions which will not attack their health and threaten their lives and which will enable them to progess in their studies as they should. By holding school in the present schoolhouse, fully 20 per cent. of the money expended there is wasted because of the very bad conditions. This procedure of the State Board of Health will make it impossible to hold school at Ekin this winter, and in this matter we have consulted with the Attorney-General, who has advised us.

There is no conflict between the health law and the truant law, as the health law is paramount and supreme. We earnestly hope that you will, without delay, meet with Mr. Bradfield and take such steps as are necessary to furnish a new schoolhouse at Ekin.

Hoping to hear from you in this matter and feeling confident you will welcome this procedure which will enable you to proceed properly, I am,

Very truly yours,

SECRETARY STATE BOARD OF HEALTH.

Tipton, Ind., September 15, 1900.

Dr. J. N. Hurty, Indianapolis, Ind.:

Dear Doctor—I posted condemnation notice on the door of schoolhouse No. 13, Ekin, Ind., on the evening of September 14, and nailed up the door, as per order.

I am glad you came to my assistance, as last fall I recommended its abandonment to the County Commissioners, but they allowed the trustee to persuade them to let him put some repairs on it and use it again. I consented, but with the agreement that it was to be closed when the weather was too cold, and after that winter it was to be replaced with a new structure.

I think the trustee of Jefferson Township, this county, was sincere, but the trustee in the adjoining county failed to comply with his contract.

Very respectfully,

A. S. DICKEY,

Secretary County Board of Health.

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JEFFERSONVILLE.

September 8.

On account of a letter of invitation from Mr. A. T. Hert, Warden of the Indiana Reformatory at Jeffersonville, seconded by a letter from the attending physician, Dr. H. C. Sharp, I visited the Reformatory to confer in regard to various unsanitary conditions. The Legislature of 1899 appropriated $210,000 for building a new cellhouse. This was required because the cellhouses existing were old, insecure and not of sufficient capacity. The cellhouses are lettered A, B, and C. A and B are still standing, but C has been torn down to make room for the new one, which is now almost completed. This necessitated the concentrating of the men into the two cellhouses and also into the chapel, schoolroom and in various other places in the institution. In cellhouse A, which was originally intended for 200 occupants, 500 men are now crowded. Other sleeping rooms contain from four to eight times as many men as could be properly supplied with air. Beds had been improvised and everywhere vermin was found. Sickness existed to a remarkable degree, especially diseases of the air passages. There had been several cases of pneumonia, and in all over 150 cases of tuberculosis now exist at the institution. The prevalence of this disease is, of course, due to the bad ventilation attending the crowding of the inmates into inadequate space. Until the new cellhouse is completed there is no possible relief to be given.

The dietary furnished the prisoners is very excellent indeed, and with it no fault could be found. The comparatively new hospital is conducted in a scientific manner by the very excellent physician in charge, Dr. H. C. Sharp. Dr. Sharp, in his report to the Warden, makes the following statement: "The State is responsible for many men contracting consumption, adenitis and other diseases of a tubercular nature. In addition to this there are a number of cases of pneumonia, anemia, and general debility which are traceable to lack of ventilation."

GOSPORT.

September 14.

I went to Gosport, Owen County, September 14, to take part in the dedication of a sanitary schoolhouse just completed by Trustee

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Gray, of Wayne Township. The schoolhouse is frame and built in accordance with the plans for one-room schoolhouses which are furnished by the State Board of Health. There was a large gathering of people upon the occasion. The exercises were opened with prayer and music and an address by Mr. Gray. I followed with a dedication address, and then a bountiful dinner was partaken of, which was furnished by the farmers' wives who were there. After dinner Judge Robinson, of Spencer; Dr. Cox, of Spencer, County Health Officer; Dr. Wooden, Gosport, and County Superintendent McIntosh made addresses.

Mr. Gray is to be highly commended for the interest he has taken in building this sanitary schoolhouse, and certain it is that the school children who attend it will be free from the sickness, inconveniences and burdens which attend those in less favorable buildings.

MUNCIE.

September 17.

I went to Muncie on September 17 to inspect an alleged nuisance caused by the Muncie Pulp Company. This great industry is situated west of Muncie on Buck Creek. It makes daily several tons of pulp from wood, and from the works many thousands of gallons of waste water are delivered daily into Buck Creek, a small stream in that neighborhood, which empties into White River. I surveyed the stream from Walnut Street pike bridge, about three-quarters of a mile above the pulp mill, to a point near Martin's farm, which is one and one-half miles below. Samples of water were taken above the mill, below the mill at a point near Nocker's bridge and also at Martin's farm. The fourth sample was taken from the flume which carried the waste from the pulp mill to the stream. Buck Creek was found to be a typical Indiana creek, receiving drainage from barnyards, pigpens and manure fields. Above the mill, in places, the bottom was of a gravelly or sandy nature, but most generally it was a muddy bottom. The water was clear and had a creeky smell. Below the mill the character of the stream changes very materially in that the bottom is black throughout the entire distance it was examined, giving a forbidding appearance.

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Vegetation was luxuriant on both sides of the stream through the whole length of my survey. I append my analyses of the samples of water taken.

From the mill there seems to be no polluting matter added to the stream. The water is slightly alkaline, containing traces of free and albuminoid ammonias, nitrites and nitrates, and does not carry any intestinal bacteria. All three of the other samples were rich in these ingredients which indicate pollution, and all three of them contain intestinal bacteria. The mill waste does, however, contain a large amount of solid matter, something like three times as much as the stream water. This mineral matter, however, is not in the slightest degree polluting. The waste bears in solution some wood pulp (cellulose) which is deposited upon the bottom of the stream. It undergoes decay, and in the decaying process blackens, and this is the reason why the stream below the mill has such a forbidding appearance. Cellulose, however, can not ferment or putrefy, and therefore it does not add any polluting matter to the stream. The leaves and weeds which fall into the stream in the fall of the year are more harmful than this cellulose, for they contain extractive substances which enter into solution in the water, ferment and putrefy, while the cellulose contains no such substance. The result of my investigation clearly indicates that the mill waste does not pollute the stream, but it does obstruct it on account of the gathering of the large amount of cellulose upon its bottom. There is now an action pending by Mr. Martin and other farmers against the pulp mill for damages.

SANITARY WATER ANALYSES—MUNCIE.

	No. 1.	*No. 2.*	*No. 3.*	*No. 4.*
APPEARANCE—				
Turbidity	Slight.	Somewhat.	Somewhat.	Somewhat.
Sediment	Slight.	Somewhat.	Somewhat.	Somewhat.
Color	Yellow tint.	Yellow tint.	Pink yellow.	Yellow tint.
SOLIDS—				
Total solids	48.50	89.50	56 50	52.50
Fixed solids	39.70	67.60	43.50	44.30
Volatile (organic)	8.80	11.90	13.00	8.00
NITROGEN AS;				
Free ammonia	0 004	0 0006	0.001	0.004
Albuminoid ammonia	0.005	0 0002	0.022	0.038
Nitrites	Trace.	None.	Trace.	Trace.
Nitrates	0.125	None.	0.041	0 037

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	No. 1.	No. 2.	No. 3.	No. 4.
CHLORIN IN CHLORIDES	1.2	12.7	3.7	2.6
IRON	0.1	0.16	0.33	0.33
INTESTINAL BACTERIA ..... (colon bacilli).	Present.	Absent.	Present.	Present.
REACTION.....	Neutral.	Alkaline.	Neutral.	Neutral.
ODOR.....	Creeky.	Woody.	Woody.	Woody.

The figures are parts in 100,000 of water.

No. 1 is sample from Walnut Street pike bridge. No. 2 is sample from flume at the mill. No. 3 is sample from Nocker bridge. No. 4 is sample from Martin's farm.

VINCENNES.

September 28—

Several letters having been received from the authorities of Vincennes requesting an examination of the water supply at that point, I concluded to visit the city, and accordingly went there September 28. Vincennes takes her water supply from the Wabash River, and after filtering it by means of the American method delivers it to the consumers. The waterworks is situated a short distance above the city, and about 1,000 or perhaps 1,200 feet still farther away is a large distillery. This institution pours several thousand gallons of slop into the river daily, and in addition during last winter fed some five or six hundred hogs and washed their refuse into the river. All of this undoubtedly pollutes the stream. The water which is now being delivered by the water company has a very offensive odor, and upon standing develops an immense amount of sediment, although when it leaves the works it is clear and bright.

I took a sample of the water from above the distillery, also a sample of the distillery waste, a sample from immediately over the intake of the waterworks, and a sample of the filtered water. My analyses are appended, and upon examination of them it is discovered that every one of them shows pollution. It was my recommendation that the City Council order the distillery to cease depositing its waste into the river. This can be done by building a sewer from the distillery down through the town and delivering it into the Wabash below. In the meantime it will be necessary for the waterworks, in order to get rid of the odor-producing growth which now pervades the building, to clean out and scald the sand and resort to disinfection. No ill health has proceeded therefrom.

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SANITARY WATER ANALYSES—VINCENNES.

	No. 1.	No. 2.	No. 3.	No. 4.
Turbidity	None.	Great.	Slight.	None.
Sediment	Slight.	Great.	Slight.	None.
Color	Faint yellow.	Milky.	Faint yellow.	None.
Odor	Faint.	Sour.	Faint.	Bad.
CHLORIN	3.6	3.2	3.6	3 6
SOLIDS—				
Total solids	42.00	361.70	47.10	45.4
Volatile solids	5.30	253.40	9.10	13.6
Fixed solids	36.70	108.30	38.00	31.8
NITROGEN AS:				
Free ammonia	0.001	0.050	0.008	0.014
Albuminoid ammonia	0.010	0.292	0.019	0.077
Nitrites	None.	None.	None.	None.
Nitrates	0.2	0.8	0.13	None.
Intestinal bacteria	Present.	None.	Present.	Present.
Crenothrix	None.	None.	Present.	Abundant.
Cyanophyceæ	None.	None.	Present.	Abundant.

The figures given are parts in 100,000,

No. 1, from Wabash River, about 325 feet above point where the distillery drain empties. No. 2, distillery waste taken from the mouth of the drain where it empties into the Wabash. No. 3, taken from the river at a point over the intake of the pumping station. No. 4, filtered water from a tap in the pumping station.

Bulletins, pamphlets and leaflets received for quarter ending September 30, 1900:

Bulletins—

Public Health Reports	13
Bulletins Connecticut State Board of Health	2
Iowa Health Bulletins	2
Ohio Sanitary Bulletins	2
Bulletins North Carolina Board of Health	2
City of Buffalo	2
City of Rochester	2
City of New York	2
Monthly Bulletins State Board of Health of New York	2
City of Winona, Minnesota	1
Santiago de Cuba	1
Laboratory of Inland Rev. Dept., Ottawa, Canada	1
Climate and Crops, Illinois Section	1
Board of Health, State of New York	1

Pamphlets—

Department of Health, city of Chicago	3
City of Peoria, Department of Health	1
Health Department, City of St. Louis	1
Monthly Report Bureau of Health, City of Denver, Colo	2

Leaflets—

Health in Michigan	10
Public Health Division, Cleveland	1
Vital Statistics of Evansville	1
Board of Health, New Hampshire	1
Superior Board of Health, Porto Rico	1
Vital Statistics of Havana	1

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Ordered: That no more Monthly Bulletins after the September number shall be printed until the United States census is available as a basis of calculation for rates and per cents.

Unanimously carried.

The following bills were allowed:

October 1—Maud Hoffman	$17 50
October 1—May Stuart	35 00
October 1—Maude Linn	35 00
October 1—Eva Campbell	35 00
October 1—Central Union Telephone Company	22 85
October 1—New Telephone Company	10 00
October 1—New Long Distance Telephone	3 55
October 1—Cyrus A. Smith	5 30
October 1—Wyckoff, Seamans & Benedict	50
October 1—Wm. B. Burford	297 89
October 1—American Toilet Supply Company	3 75
October 1—The Office Supply Manufacturing Company	5 70
October 4—Smith Premier Typewriter Company	2 00
October 4—J. N. Hurty	79 62
October 5—Western Union Telegraph Company	4 92
October 5—E. D. Laughlin	11 15
October 5—J. H. Forrest	6 30
October 5—T. Henry Davis	5 00
October 1—New York Store	64
October 4—George F. McGinnis	50 00
Total	$631 67

The report was read and adopted and ordered spread of record.

Adjournment.

T. HENRY DAVIS, *President.*

J. N. HURTY, *Secretary.*

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REPORTS

OF

COUNTY HEALTH OFFICERS.

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REPORTS OF COUNTY HEALTH OFFICERS.

ADAMS COUNTY.

I made a careful inspection of the county infirmary and outbuildings the last of November, and found the sanitary condition in every department of the institution to be as good as could be expected under the existing conditions. The main building has been built several years and has about outlived its usefulness. As it is, it lacks all modern facilities and conveniences with which similar institutions of more recent construction are equipped. It is, in fact, thirty years behind the times.

The number of inmates at present is 38; 28 males and 10 females. Two deaths have occurred at the infirmary during the past year, both males.

The building is a regular fire-trap, the means of controlling a possible fire are wholly inadequate, and it is very probable that in the event of a fire occurring in the infirmary at night quite a number of the inmates would perish.

The brick building which serves as a place of detention for the feeble-minded and insane inmates is a shame and disgrace to the county, it being also used as a storeroom and for a milk and butter house. It is one of the most unsanitary buildings that any one could conceive of.

The only remedy that is at all applicable to the present condition of the county infirmary is the erection of an entire new building, with all the modern conveniences, together with proper drainage and the best means of heating and ventilating.

The county jail is in fairly good sanitary condition, but it can be improved by better drainage.

The schoolhouses are, for the most part, in good sanitary condition, with the exception of about four. Of these four, much need not be said, as they are in anything else but a good sanitary condition, and the remedy for them is the building of four new ones.

The general health of the people of Adams County has been fairly good. We have had more typhoid fever than we should have had if more care had been taken to remove the cause. We also have had some diphtheria, scarlet fever, measles, and are now having several cases of smallpox in a very mild form. There have not been any epidemics.

I am pleased to say that, as a rule, the physicians of Adams County are very prompt in sending in their reports of births, but are a little slow in reporting contagious diseases. I am satisfied, however, that this will be remedied in a short time.

Respectfully,

H. F. COSTELLO,

Health Officer.

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BARTHOLOMEW COUNTY.

The sanitary condition of the above-named county during the fiscal year ending September 30, 1900, as disclosed by a careful survey, shows the county to be in a fair sanitary condition, except in the neighborhood of a few sloughs, ponds or bogs, which could and should be drained for the benefit of public health, but when I brought the matter of draining them to the attention of the County Board of Health they, upon the advice of the county attorney, decided that application must be made by the parties to the Judge of the Circuit Court.

The county asylum, county jail, courthouse and orphans' home were all found to be kept clean and in good sanitary condition.

The schoolhouses were all, or nearly all, put in good sanitary condition prior to the opening of the public schools in September, 1900.

During the year there has been no epidemic of contagious and infectious diseases in this county, although there were reported 180 cases of contagious diseases, and this, no doubt, is short, as there were some cases of measles not reported when no physician was in attendance. Typhoid fever prevailed to quite an extent in the eastern part of the county, with here and there a case in other parts of the county.

There were reported several cases of scarlet fever and some diphtheria, both of which appear to have been of a sporadic character; if not sporadic, then endemic.

There were two cases of illegal interment in the county that came to my knowledge. The coroner was notified, and he exhumed the remains, held an inquest and reported as the law requires.

There were reported, during the year, marriages, 201; births, 528; but I can only give correctly the deaths for ten months, which were 317, the same ratio for the year will give 387 deaths, which is rather a large mortality for what is being called a healthy year.

The above may not be exactly correct, but it is as nearly so as I can possibly make it. I watch the papers and take note of all births and deaths, and do all I can to promote the health, happiness and prosperity of the citizens of Bartholomew County.

J. S. ARWINE,
Health Officer.

BLACKFORD COUNTY.

In presenting my annual report as Secretary of the Blackford County Board of Health, I think that I can safely say that from a sanitary point of view this county can be voted among the best in the State. It is thoroughly drained, not a swamp or frog-pond to be found in the county. It affords the purest and best drinking water, which the inhabitants obtain from deep driven wells. In a few years the dug well will be a thing of the past in this county. Blackford County is the backbone of the natural gas belt; each and every home is, or can be, supplied with an abundance

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of gas for domestic purposes at a very low price, so that the occupants can keep their houses clean, dry and at an equal temperature. This county is known as the Oil Klondike, by reason of the fact that so many farmers have become immensely wealthy by the finding of oil on their farms, thereby enabling them to build good homes for themselves and families and keep their surroundings in good sanitary condition. Before the lapse of many days this county will be dotted with a myraid of derricks; drills will pierce the secret reservoir and spout fabulous wealth from an oceanic pool of oil which underlies the fertile soil of this, the garden spot of Indiana.

There has been very little sickness in the county during the last year. A few cases of scarlet fever, measles and diphtheria, originating sporadically here and there, also a few cases of typhoid fever, of a very mild form, have been reported. Two cases of smallpox developed at Montpelier, but by the prompt action of the City Health Officer (Dr. J. C. O'Day) and the assistance of the attending physicians the disease was prevented from spreading.

The county infirmary, courthouse and county jail are in good sanitary condition.

The schoolhouses in the rural districts, also the city schoolhouses, are in first-class sanitary condition.

Hartford City has a population of 8,000, has a good sewerage system, and the city waterworks supplies the inhabitants with pure and wholesome water obtained from deep driven wells.

An ordinance, passed by the Hartford City council last February, compelled all school children attending the city schools to get vaccinated. The result was every school child, old and young, was vaccinated; also the teachers and a great many of the older citizens were vaccinated.

Montpelier, with a population of about 4,000, has a good sewerage system, and its city waterworks supplies every home in the city with good and pure water at a very low cost. All the school children attending the city schools were vaccinated last spring, in compliance with an ordinance passed by the Montpelier City Council, and enforced by the City Board of Health.

Not one bad result occurred in the county from vaccination.

The physicians of this county, as a rule, are progressive and law-abiding citizens, and generally send in their reports promptly to the proper Health Officer, in compliance with the law.

W. N. CRONIN,
Health Officer.

CLARK COUNTY.

VISITS AND INSPECTIONS.

I have visited and inspected the books of my subordinates in office, the schoolhouses and public buildings in the following places: Borden, Memphis, Sellersburg, Henryville, New Washington, Nabb, Charlestown, Clarksville, Port Fulton, Claysburg and Jeffersonville. In all of the above

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places the books of the deputies and secretaries were correctly kept, except at Henryville, where they did not just understand how it should be done. I helped straighten the books and gave some instructions, which I am sure will prevent further mistakes. I found some of the schoolhouses and surroundings in good condition, and others fair. At Memphis, Henryville and Nabb the waterclosets were in bad condition. I called the attention of the newly-elected trustees to the matter, and I am pleased to report that at Memphis and Henryville conditions have been corrected. As yet I have no word from Nabb. Sellersburg and Port Fulton have greatly improved their sanitary and health conditions, as well as the comfort and beauty of their towns, by thorough drainage, by improving streets and sidewalks, and by a general clean-up. The spirit and enterprise of the people are commendable, and their health secretaries wide awake.

Charlestown.—The report received from the health secretary last May concerning the sanitary condition of the schoolhouses in some respects was not good. I am pleased to state, however, that later I found many of the defects corrected and everything in fair condition. The health secretary is doing his duty. They have three first-class church buildings, beautiful for situation.

Jeffersonville.—It affords me the greatest pleasure to announce that on the incoming of the twentieth century and the year of our Lord nineteen hundred one, the "pig pen" was found empty, and the "hog" banished, by an act of the common council of the city. The sanitary condition of the city is fair. The Deaconess and Mercy hospitals are well kept, in good sanitary condition, and are doing a very commendable work, under the management of a corps of very efficient nurses. The orphans' home, located in this city, is a credit both to the city and county; the sanitary conditions are good, with twenty-five healthy, happy children, well cared for. Too much praise can not be given to the efficient matron, Mrs. Harrington, and her assistant, and the noble women who compose the board of directors. A room well located, well ventilated and lighted, has been converted into a beautiful, well planned, well furnished hospital, about completed.

County Jail.—On the last day of the year there were thirteen prisoners confined; of this number three were females. There is always more or less sickness among them, mostly venereal diseases and chronic alcoholism, wounds and bruises. There should be some provision for the very sick, where they could be isolated and treated. So far as I have been able to see, the inmates are humanely cared for.

The County Asylum for the Poor.—At my visit to this home of the unfortunate poor there were twenty-six inmates, thirteen of whom were females, and eight of the whole number are persons returned from the insane asylum. They appeared to be more imbecile than insane. There were no acute cases of sickness, but several chronic cases, and a few are feeble from old age; six had died during the year. I heretofore called attention to the wooden part of the buildings. It is hoped that in the near future the county will find itself in a condition to provide as comfortable quarters for its poor as the State does for its criminals. I would say the general care of the inmates and sanitary conditions are as good as could be expected under the circumstances.

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County Pesthouse.—It is in a good sanitary condition. During the spring and summer the building has been repainted on the inside, the walls whitened, window lights put in, and all needed repairs made through the building, and everything in readiness to receive patients, if we are unfortunate enough to have them. During the quarter the following reports of contagious diseases were received:

Borden.—Drs. Stalker reported nine cases of diphtheria, all located in the surrounding country. I visited the place at the time of the disease, and learned that most of the cases were of a mild type. Some two or three cases proved fatal. I found the doctors were seeing after quarantine and disinfection, and most intelligently and prudently handling the cases, and preventing the spread of the disease. They also report two cases of typhoid fever.

Sellersburg.—Reports one case of diphtheria and fifteen cases of typhoid fever in the surrounding country. The physicians believe the drought of last summer and fall is the most productive cause of the disease.

Henryville.—Dr. Walker reports two cases of diphtheria from Monroe Township, both in the same family.

New Washington.—Dr. Taggart reports five cases of typhoid fever—two in the town and three at Otto.

Charlestown.—Dr. Works reports one case of typhoid fever.

Port Fulton.—Drs. Sigmond and Hancock, one case each of scarlet fever.

Jeffersonville.—Drs. Flynn and Sigmond reported each one case of diphtheria, and Dr. Hancock two cases in the city, two near the city, and one in Howard Park. Of the seven cases reported there was one death. He also reported one case of scarlet fever in Port Fulton. Dr. Bruner reported two cases of typhoid fever in the city. Dr. T. A. Graham reported seven cases of typhoid fever and two cases of scarlet fever, making in all for the whole county: typhoid fever, 30; diphtheria, 19, and scarlet fever, 4. As full reports of births will not be made until after the 15th, I am not able to report them here.

Smallpox.—So far we have not had a return of this disease, although reports come from several counties of our State where the disease prevails, and reports from the State of Kentucky tell us that Greenup County was quarantined. There were several hundred cases, and the death rate was 20 per cent. It is also reported that Care City has the disease. With these facts before us, it seems almost impossible to escape the return of the disease to our county. I have suggested to our physicians time and again to urge upon their patrons the importance of vaccination as the only sure preventive of smallpox, but I fear it has been only partially attended to. During the quarter my correspondence with my subordinate officers, deputies and the physicians and persons outside the county seeking information, has been quite heavy as well as a tax upon my time. Indeed, if one would undertake to do all that, by rights, ought to be done in this great field, it would occupy all his time. There has been quite an improvement this quarter in the matter of reports by officers and physicians and yet all our reports are not perfect; but I think as the physicians and people come to better understand the importance of this work

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and the objects to be obtained, they will become more interested and the law fully complied with. I will gladly receive any suggestions, instructions and even criticisms from you.

DR. W. H. SHEETS,
Health Officer.

DEARBORN COUNTY.

Dearborn County has a population of about 22,600, with eight incorporated towns; 103 schools, with about 7,000 school children. The schools in the county are in fairly good condition; some of the buildings are old, but it is hoped will soon be replaced with new ones supplied with modern conveniences. The water of some of the country schools is not good, especially those that use cistern water. The cisterns are not cleaned every fall, and consequently the water becomes foul and unfit for use. No schools were closed during the year by reason of contagious diseases.

The number of contagious diseases reported for 1900 has not been as large as in 1899. They were as follows: Diphtheria, 25; scarlet fever, 27; measles, 9; smallpox, 10; typhoid fever, 37; whooping cough, 6. Compared with 1899, there were thirteen more cases of scarlet fever and fourteen more cases of typhoid reported this year. The poorhouse was built in 1882, of brick. It has sixty-four rooms. These rooms are large, with high ceilings, are well ventilated and heated by steam. The water supply is procured from dug wells and cisterns. During the year it averaged 42 inmates—32 males and 10 females. There were two deaths, both females; one died of dropsy and the other of flux. There is also a stone house 54x42 feet which contains ten cells, in which to confine the incurable insane. This building is heated by steam and kept clean as possible under the circumstances, but the ventilation is poor, and it is impossible to keep it free from odor. There is only one inmate kept in a cell, and at present there are nine cells occupied.

The jail is in good condition; was built of brick, in 1893; has twenty cells; heated by steam; water supply from driven well; sewer from jail to vault in the yard. There has been no sickness nor deaths during the year among the inmates. We have no orphans' home in this county. General surface of county, rolling.

Total number of births for the year was 369; number of deaths from January 1, 1900, to November 1, 1900, 243.

Inclosed please find sanitary reports of Lawrenceburg, Aurora, West Harrison, Dillsboro and Cochran.

A. T. FAGALY, M. D.,
Secretary Board of Health Dearborn County.

SANITARY REPORT OF CITY OF LAWRENCEBURG FOR YEAR ENDING DECEMBER 31, 1900.

Lawrenceburg is located on the Ohio River, bottom land; has population of about 5,000; general surface level, with sandy soil. There is one

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underground sewer that collects the surface water in the most thickly populated part of the city and carries it to an old pond. This pond has an outlet through a tile drain to Tanners Creek, and by said creek to the Ohio River, about one mile below the city. The city has three school buildings. The high school building (the main building) is an old structure of ten rooms; ventilation not first class; built of brick. The addition thereto was built about 1881, of brick, and has four rooms; ventilation fair. The entire building is warmed by furnace. The Newtown school building is also an old structure, built of brick, two stories, two rooms; ventilation as good as could be expected in an old building; warmed by furnace. The other building is a very old one-story brick, two rooms; ventilation and light poor.

The courthouse is a three-story stone building of sixteen rooms, built in 1872, well lighted and ventilated. The water-closets are in the building, sluiced with water from tank in third floor and carried off by drain to vault in jail yard, a distance of about fifty feet; building warmed by stoves and grates. The jail was described in my county report. There are many horse, cow and hog stables in the city, but these are inspected every spring by the sanitary police, and the owners are compelled to put them in good sanitary condition. Hogs are not allowed to be kept within the city limits during the summer months unless the pens are kept clean and free from odor. All vaults are inspected; also the alleys, and are kept in sanitary condition, or as nearly so as could be expected in a town of this size.

The health for the year has been very good; the number of dangerous diseases not as large as last year. Total number of births for the year was 119.

A. T. FAGALY,
Health Officer.

DILLSBORO.

Dillsboro is a town of about 800 population and is located about ten miles from Aurora; lies high but is practically level; it has no sewerage, but has good drainage almost any direction from the town; has one school and three churches. I find the sanitary condition good. No epidemic; have been no contagious diseases during the year.

E. L. A. BROWN, M. D.

COCHRAN.

The sanitary condition of the town of Cochran is good; sewerage good; no stagnant pools or other objectionable conditions; schoolhouse well located and in good condition.

C. C. MARSHALL, M. D.

AURORA.

I herewith report the sanitary condition of the city of Aurora to be as follows: The general health of the year just ended has been good. We have had no serious nor extensive epidemics of any kind. A few cases of diphtheria, scarlatina and typhoid fever have appeared, but no

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general epidemic. Our city has a natural drainage for the greater part, it being located on hillsides. Part is located in the valley. Much of this is drained by a public sewer recently constructed. We have no ponds or stagnant water in the city limits. A thorough inspection of all vaults, water-closets, alleys and streets and premises is made every year.

W. C. HENRY, M. D.

WEST HARRISON.

General health in my township may be considered good. No contagious diseases, lingering fevers or anything of the nature of an epidemic known, except perhaps la grippe.

W. H. H. WILLETTE, M. D.

FLOYD COUNTY.

Conforming to the regulations of the State Board, I herein send my January report as relates to the sanitary conditions of Floyd County. No smallpox has been reported during the year 1900. Measles and scarlet fever prevailed during the first three months of the year, with only one death from scarlet fever. Typhoid fever has decreased during the last twelve months. Pneumonia has been of rare occurrence. We have had probably ten cases of erysipelas, but pulmonary consumption claims the usual percentage of victims. Two new school buildings have replaced old ones in the county since my last report to you, and one more is promised. They are frame structures of pleasing appearance, containing one common recitation and study room; one central entrance, with cloakrooms on each side of entrance; provided with ventilating flue, and heated with a jacketed heater, as recommended by sanitarians, all of which sounds well, but does not diffuse the heat any better than the old-time stove, as I have visited these buildings to ascertain how the heating and the ventilation were conducted. The county asylum is, so far as my observations and inspections go, kept as clean and orderly as is possible, considering the class of inmates sheltered there. Several of the insane are filthy and bestial in habits beyond description. The jail is kept in perfect order so far as a building for the retention of a bad element can to be kept. The county council has agreed to appropriate money enough to build an addition to the jail and replace the plumbing with modern closets, baths, drains, etc. The orphans' home has less intestinal troubles among the little inmates than most private families, which speaks for itself.

One of our dairies developed anthrax during the month of September, which resulted in the loss of three cows only. Prompt measures were taken to stay the progress of the infection, and no further trouble followed. Throughout the townships I have no trouble in enforcing the law, but the towns sometimes are inclined to be a little rebellious. I herewith send reports from Dr. Williams of Greenville and Dr. Harmon

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of Georgetown. Dr. J. F. Weathers of New Albany has not complied with my request (in form of written notice); but says everything is all right. He refuses to make any written report.

R. W. HARRIS,
Health Officer.

GEORGETOWN.

The health of this vicinity is very good and has been for the last twelve months, and as to the sanitary condition of the schoolhouse and the town generally, I would say that it is as good as is generally found in small country towns.

T. J. HARMON, M. D.

GREENVILLE.

Our town is not kept in the best sanitary condition; foul hog-pens have become the fashion with too many people, which I can not abate. Weeds are permitted to grow in alleys, almost obstructing passage.

Our school building is a one-story brick, with two rooms, heated by wood stoves; ventilated by windows; water supplied by the old-fashioned well. The sanitary condition of the house is good, being cleaned and aired every evening after school.

We have had four cases of typhoid fever in the town and four of scarlet fever, the scarlet fever being imported from Galena, Ind.

W. R. WILLIAMS, M. D.

FULTON COUNTY.

I herein submit the annual report of Fulton County: The sanitary condition of the county in general is very good. The present sanitary condition of the poorhouse, courthouse and jail is also good, including heating, ventilating, sewerage and water supply. We have had no general epidemic of disease this year; only a very few cases of typhoid fever developing. Our natural location, good surface drainage and pure water supply are, we think, great factors in the prevention of this fever. We have had quite a number of cases of diphtheria and scarlet fever. These cases have appeared in different and remote parts of the county, but they have been confined to the first outbreak, and no general or local epidemic has resulted, nor have any of the district schools been interrupted. In September we had seven cases of smallpox in Liberty Township, confined, however, to one family, but in two houses. This disease was contracted by two members of this family while on a visit, and both were taken sick on the same day soon after returning home. The other members of the family were thus exposed and were taken sick in the course of time. Of these seven cases, none of the patients were ever vaccinated. One boy, aged seven, though never vaccinated, did not take

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the disease. Thus seven out of eight exposures contracted the disease. The mother, who nursed five of these cases, escaped the disease. She was vaccinated years ago, and had a very slight scar of vaccination. Therefore, in these cases we have evidence that vaccination, even of years standing, prevented the disease, and that seven out of eight exposures in nonvaccinated persons contracted the disease.

I inclose with this the report of Dr. Crosby of the town of Rochester.

CHAS. E. GOULD,
Health Officer.

ROCHESTER.

It affords me much pleasure to report that Rochester is making steady advancement in general, and in improved sanitary conditons in particular.

Our streets have been kept in an unusually good condition, and our citizens have, as a rule, taken much pride in making their buildings and lawns objects of beauty and neatness.

The most noted improvement, however, is the draining of Nixie Pond.

I referred to this in last year's report as having been agitated, but not then accomplished.

This much-needed work has been completed during the present year in a most thorough and workmanlike way.

The malodors and poisonous effluvia from Nixie Pond is practically a thing of the past. This condition of sanitation is very satisfactory to the citizens of Rochester, and reflects great credit on its council. The sewerage question is still, as in the past, an unsettled one. We hope that continued prosperity and other fortunate circumstances may combine to give us this much-needed sanitation in the near future.

W. S. CROSBY, M. D.

GIBSON COUNTY.

I have made a general survey of the county in regard to its sanitary condition, and find it fairly good, notwithstanding we have had some contagion, and have had to abate a few nuisances.

The Health Officers have responded promptly to my request in making reports. I have visited a number of schoolhouses and other public places of the county and find them in good sanitary condition. We have steam and hot water systems for heating the public schools in the city of Princeton. The school buildings are also provided with dry closets.

Our city and country school buildings are certainly excelled by very few counties in the State. Our water supply is from cisterns and wells.

We have had seven cases of smallpox and three cases of varioloid, all recovered. Forty-four cases of typhoid fever, twenty-three cases of scarlet fever and one case of diphtheria during the year 1900 in Gibson County.

There has been 566 births—291 males, 275 females. There were 320 deaths reported, of which 71 died at one year old and under.

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COUNTY JAIL.

The jail was built in 1884, is a brick structure and lined with steel. It is heated by stoves; water is supplied from cistern and well; has tile drainage. The building is too small, and was always so. When I visited the jail I found a cow stable along the east side of the building under window from where the poor inmates received their supply of air; the building and inmates were unclean and in a very poor sanitary condition. The inmates complained of being infected with vermin. After a careful examination, I ordered a thorough cleaning and disinfecting, which was done without delay. The old bedding was all burned and the beds throughout supplied with new.

There have been no deaths at the jail during the year and but very little sickness; some malarial fever and venereal diseases.

The jail is now in as good sanitary condition as could be reasonably expected under existing circumstances.

ORPHANS' HOME—WHITE.

In my visit to the Orphans' Home recently, I was favorably impressed with the location, which is about one-half mile from the town of Patoka. The building was originally built for a residence at a cost of $15,000 thirty-two years ago, and was purchased by Gibson County in the year 1894 for the sum of $5,000, including eight and one-half acres of land, for a home for orphan children.

The building is a brick structure, containing fifteen rooms and cellar.

Average number of inmates, twenty-five. Water supply is not sufficient in quantity, but is apparently clean and pure.

The school building which has been recently erected is in excellent condition. The sewerage, which is by tile, is in fairly good condition.

There has been one death during the past year—female, twenty-one years old, of consumption. There has been no epidemic during the year. The matron is worthy of the trust she holds. The inmates are well cared for, and everything about the premises is in excellent sanitary condition.

ORPHANS' HOME—COLORED.

The Colored Orphans' Home is as well cared for as could reasonably be expected under the circumstances. The building is a frame, consisting of four rooms, and contains eighteen children.

The building is located in a low, level place near railroad, and should be moved to a more suitable location. One death occurred at the home during the year 1900. There has been very little sickness.

Building has no cellar, and is heated by stoves and not well ventilated Water is supplied from well and cistern.

J. S. CRITCHFIELD,
Health Officer.

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POORHOUSE.

Building is a brick structure, erected in 1891; contains twenty rooms and cellar, and is in good condition.

The average number of inmates, twenty-five. The building is heated by steam. Water used in and about the premises is taken from a well and is of good quality; the supply is probably insufficient during the heated season.

The sewage is carried away a distance of 2,000 feet. The inmates are well fed, and there has been but little sickness among them during the year.

GRANT COUNTY.

The year just passed has been an interesting one in the annals of the Grant County Board of Health. During the month of January the matter of a new building at the county infirmary for the accommodation of insane persons was taken up. An appropriation of $3,000 was made by the County Council for this purpose, and the writer, in company with Mr. B. L. French, architect, was instructed by the Commissioners to visit such institutions in various parts of the State as we might deem best, and consult with those individuals interested in the care of insane and other dependents in order to secure data for the proper construction of such a building. In compliance with these instructions we visited the new infirmary of Kosciusko County, at Warsaw, Ind. The new jail at South Bend, the county seat of St. Joseph County, was visited, as was also the Eastern Asylum for the Insane, at Richmond. After the first draft of the plans was completed we visited Mr. A. F. Butler, the Secretary of the Board of State Charities, at Indianapolis, and submitted the same to him for approval. After inspection Mr. Butler suggested a few minor changes which were afterward incorporated in the plans. While Mr. French was preparing the plans for the new cellhouse Mr. Ansel Smith, County Surveyor, drafted plans for a sanitary sewer at the infirmary. Plans were also prepared by Mr. French for the reconstruction of the plumbing of the interior of the infirmary.

The new cellhouse has been completed. It is situated southeast of the infirmary proper, built of brick and stone, one story high. It contains eight cells, four in each end, separated by bathrooms and attendant's room in the middle. The cells open off a corridor nearly equal in width to the depth of the cells. Six of the cells and the bathrooms are provided with porcelain water-closets of the kind known as "Philadelphia Hopper," or prison model, no wood being used in their construction, and the closet being bolted to the floor. These closets are flushed by turning a key in the attendant's room, which admits a supply of water from a tank in the attic.

In front of the cells in the corridor of each side is situated a copper gutter, to which the floor slopes from both sides of the building, and

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which is provided with a bell trap for the purpose of flushing the floors when it becomes necessary in order to clean them. The floors are of hardwood, oiled. The walls of the interior are not plastered, but paint is applied to the brick instead. The cells are separated by brick partitions, and have a grating in front. Each cell is lighted by a window. Windows are protected by wire guards. Heat is furnished by a hot-air furnace in the basement.

This building is intended for the detention of insane persons, who, for any reason, can not be admitted to the regular hospitals for the insane. Heretofore it has been necessary to confine such persons in the county jail or in a miserable place in the basement of the infirmary building, when there were more than one or two, as there was only room for two above ground in the infirmary, and these rooms had no sanitary arrangements.

The new sanitary sewer has been completed, and the improvements in the plumbing of the interior are now in progress. These consist of attachments of soil pipes from the laundry and kitchen to the sewer proper, and the installation of modern flush-closets and bathrooms in place of the old copper bathtubs and the very inadequate water-closets before provided. The supply of natural gas at the infirmary has been uncertain for the past two years during cold weather. I have visited the institution when it was impossible to remain in the rooms allotted to the Superintendent's family without freezing. This, I am informed, is a common occurrence in cold weather. The rooms occupied by the inmates, especially on the second floor, are tolerably well heated.

Gas has been used as a motive power to furnish a water supply, but of late it has been necessary to erect a windpump for this purpose.

Coal has also been provided to supplement the gas for heating purposes. These, however, are only temporary expedients, and must soon be replaced by a steam plant of sufficient capacity to heat the building properly, furnish an adequate supply of water for all purposes, and to run the laundry, dryroom, etc.

If fire should break out at the county infirmary now the whole building must of necessity be destroyed, as there is absolutely no fire protection whatever.

The old system of Smead closets, supposed to have been abandoned several years ago, are still being used by some of the inmates, without the knowledge of the superintendent, I suppose. They have also been used as a dumping place for waste paper, rags, sweepings and all kinds of trash, until several wagon loads have accumulated. It is not safe to burn this mass out, as it would endanger the building, hence it will be necessary to tear out the closets, which give forth a foul odor that permeates the basement, and clean out the accumulated filth and debris, and, after cementing the floors and whitewashing the walls, utilize the space they now occupy for other purposes.

Water from the downpipes before the sewer was installed soaked the walls of the basement and caused the walls to peel inside. This old plaster should be removed and a new coat supplied, which will doubtless be permanent. The superintendent should be supplied with adequate help, so that the building and grounds around it can be kept in better

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condition. If the same discipline and order that prevail upon the farm and about the barns and stock buildings of the county farm could be instituted about the infirmary itself, there would be nothing to complain of. At present, repairs are in progress that interfere more or less with cleanliness, but it is not necessary to have chicken-coops built under the porch, thereby causing accumulations of unsightly dust and debris under the porches, upon basement windows and in various nooks and corners that are unsightly and unsanitary. All this should be removed. The portions of the house in daily use are kept very clean, but it is the out-of-the-way corners that need attention. The present superintendent, Mr. T. H. Banks, is an able and efficient man, who has the interests of the inmates at heart, and I am sure that, with proper help, he will make the infirmary a model institution.

ORPHANS' HOME.

This institution is kept in fine condition by the present matron, Miss Carrie Thrall, who is ably and intelligently assisted by the very competent board of managers. On inspection I find the inmates in good condition, there having been very little sickness of a serious nature during the past year, one death (tuberculosis) only being reported. The fresh air duct leading to the furnace under the new wing needs repairing and enlarging, as also does the door leading to the fresh air room of one of the furnaces under the older part of the building.

The Smead closets are kept in good condition by unremitting attention on the part of the matron, and there is a fairly good supply of natural gas for all purposes. The same conditions apply here as at the infirmary. As the supply of gas gets less and more uncertain every year, it will be necessary, in the interest of economy, to install a steam plant for heating, supplying water and running the laundry. The water supply is now often inadequate for the demands of the institution when the wind pump fails to work, as frequently happens.

I find no accumulations of rubbish, dust or dirt in out-of-the-way places around this institution. Everything is kept as carefully as in a private residence, plenty of efficient help being provided and ably superintended.

JAIL.

The jail of Grant County in every respect is an unsanitary building, utterly inadequate for the purpose for which it was built. It was condemned by me in a previous report, the Secretary of the Board of State Charities has paid his respects to it in the same way and it has been condemned by the grand jury.

During the year, at the request of the Commissioners, I appeared before the County Council and called their attention to these things and asked for an appropriation of $50,000 with which to construct a new jail. The County Council, however, adjourned sine die when this proposition was made. The reasons for condemning this jail are: (a) It is too small. (b) Prisoners can not be segregated. (c) Sheriff's family are brought in di-

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rect contact with prisoners, have not sufficient room, and are not provided with proper sanitary appliances. (d) Plumbing of the jail proper is constantly out of repair, imperfect and leaky. (e) Ventilation very imperfect. The present Sheriff, Mr. C. C. Bradford, has endeavored to carry out instructions of Mr. Butler, made while here last year, and has succeeded fairly well—as well as permitted by his surroundings and the means with which he is provided. According to the law, the grand jury, having condemned the jail, may indict the Commissioners at their next session, provided they fail to take steps to rebuild or change the condition of the building. This makes the Commissioners responsible for the condition of the jail jointly with the Sheriff.

The County Council has failed or refused to furnish funds for a new jail, and the only course left for the Commissioners is to keep the jail in as good condition as possible. The interior of the jail needs repainting at this writing. Owing to the urgent representations of Mr. Butler, who threatened legal procedure if his demands were not complied with, the interior was cleaned and painted last winter. The jail is crowded, and soon gets dirty with the best of care, for the reasons above stated. It is expensive to repaint, but it must be done or both Sheriff and Commissioners are liable if the Board of State Charities sees fit to take any legal action. Sanitary reasons also demand that the interior of the building where men are confined for long intervals should be kept in good condition, for the dirt is a means of producing disease by carrying infection from those suffering with consumption or other infectious diseases to those who are well when incarcerated. I hope to soon see a new jail constructed for many reasons, but as long as the present one is used it must be kept in a sanitary condition as far as possible, by frequent cleaning and repainting.

During the past year improvements have been made at the court house in the shape of modern water closets and lavatories for both sexes. These are located in the basement and are a vast improvement.

The subject of country schoolhouses has received considerable attention from the Health Officer during the year. Several Trustees have entirely ignored the Board of Health in the construction of new or the repair of old buildings, until their attention was called to the rules of the State Board and prosecution intimated in case they failed to comply. I have thought it best to proceed on a campaign of education in this matter, and hope in the near future to see schoolhouses in the country equaling in sanitary facilities those of the cities. There are so many unsolved problems in the matters of ventilating and heating country schoolhouses properly, and at the same time avoiding extravagant expenditure for returns received, and providing for artistic exteriors that one hardly knows where to begin, and, having once begun, to select a proper stopping place. I have read with much interest Mr. Burrage's new work on this subject, and I hope to see more like it. We need more information on these matters, for if we say to a Trustee, you must construct after a certain fashion, we must be able to give a logical reason for the faith that is in us or he will set us down as cranks and do as he pleases.

Nuisances to be abated come up occasionally. I have found a good way to deal with them. I have a notice in form somewhat like a summons,

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and all I have to do is to fill names and dates and specify the nature of the nuisance to be abated and then serve it on the offender. It works like a charm when a verbal notice would receive little or no attention, and in most cases no further attention is needed.

In the month of May occurred our first case of smallpox at the town of Fairmount. By the prompt action of Dr. J. W. Patterson, the local Health Officer, the case was quarantined at once, all exposed persons vaccinated, and consequently only the one case occurred. Before this case was dismissed, however, a fresh center of infection appeared at a group of houses situated at the extreme north end of the town of Jonesboro. Here the disease was present for two weeks before the Health Officers were notified, and a large number of persons were exposed. There were in all sixteen cases of the disease, some very severe and some (the great majority) very mild. A large number of persons were vaccinated without serious opposition, and the disease was at last checked toward the end of July. This epidemic cost the county nearly $900, a large portion of which might have been avoided if the Health Officer had been promptly notified at the beginning. In the latter months of the year two cases appeared at Jonesboro, the infection coming from Delaware County. Prompt isolation and vaccination prevented further spread, and no more cases appeared. The Wheeling epidemic also was responsible for another case in Liberty Township in November, which closed the list for the year. In almost every epidemic I find that the local physicians fail to properly diagnose the case, even when the disease is well marked. Smallpox is so common now that such mistakes are not as excusable as when it was more rare.

The Secretary of the State Board has called my attention to the high death rate from typhoid fever in the city of Marion during the past year. I have only made a partial investigation, but I think that the reports are true and that the sanitary conditions to which this high death rate is due are shallow wells or wells in close proximity to cesspools or privy vaults. It is only three years since the first general system of sanitary sewers was established in the city. Many portions of the city are still unprovided with lateral branches, which are, however, being rapidly constructed. In many portions of the city the soil is of a gravelly nature and sewage rapidly sinks to the level of the shallower wells. Many wells originally dug and bricked up in the older portions of the city have gone dry and extensions have been driven down from the bottoms. The wells originally driven frequently have a cesspool in the pit about the upper part of the well where the earth is dug away for the reception of the pump. The greater number of the houses, especially in the outskirts of the city, are unprovided with any sewer connection, and their privy vaults are merely holes in the ground. When any one looks down an alley and sees the interminable line of privies standing on it and realizes the great majority of them are reeking with filth, it is not hard to see where the typhoid comes from. There are no cases of typhoid, or very few, from the portions of the city where the people draw their water supply from the city mains. The city water is good and those who drink it alone are safe. Those who persist in drinking well water will always be in danger. The remedy will be the extension of water mains and sanitary sewers and the enactment

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of an ordinance compelling the citizens to attach to the sewers when possible.

The same conditions exist to a greater or less extent in all of the towns in this county which have grown so rapidly since the discovery of natural gas.

A. E. POWELL,
Health Officer.

JACKSON COUNTY.

I beg to submit the following as my report for the year 1900:

I have made a survey of the county and find it in much better condition than a year ago, and am firmly convinced that the people are taking on advanced ideas regarding sanitation.

I am indebted to Drs. Hill, Heller and Applegate, Health Officers of the city of Seymour, towns of Brownstown and Crothersville, respectively, for the matter regarding said places.

Seymour, built on black, sandy loam, has been greatly improved by the addition of a number of tile drains built by the city. The open drains and sewers and the alleys have been better cared for by the street commissioner. The garbage also has been more promptly removed. An inspector of vaults did effective work. Many streets have been improved. There are several squares of brick streets, which are swept every day. The business portion is built of brick; residences mostly frame. The total number of deaths was 106; of this number 4 were due to diphtheria and 3 to typhoid fever. The annual death rate was about 16 to 1,000.

Brownstown is a town of 1,685 papulation, all white. Business houses are not contiguous, but are built near two foci, the depot and courthouse, about four-fifths of a mile apart. A watershed runs between the two sections; the surface is rolling, the soil sandy, with a few sporadic patches of clay. The town owns and operates an electric light and water plant. The water is obtained from a large well dug into a substrata of gravel at the junction of the bottom and high ground, about three-fourths of a mile from White River. The plant is comparatively new, and more than half of the water consumed is obtained from common wells. The principal streets are gravel. There is no sewerage system, but there is a stone guttering along the principal thoroughfares, with sewer crossings. The more used sidewalks are limestone, cement and brick. Most business houses are brick; residences frame. No epidemic within the past year. There have been smallpox, measles, scarlet fever, pertussis and typhoid fever, but not in an epidemic form. As elsewhere, tuberculosis is our most deadly foe, and the laity are slow to take advantage of intelligent profylaxis. The school is a two-story brick, heated by hot air. The dejecta are deposited in dry closets. Simple vaults dug into the earth on the rear of lots serve as depositories of the town in general.

The town of Crothersville is situated on a flat tract of white clay soil lying between the two forks of the Muscatatuck River. There are no

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mechanical drains, but a natural water course through the southern portion of the town affords convenient drainage. Streets, alleys and ditches have been kept clean. Wells are the source of water, average depth 21 feet. Buildings mostly frame, there being 25 brick. No paved streets; business streets are graveled; principal sidewalks are brick. The filthy stockpens have been ordered abated by the town board and a sewer is being laid from the canning factory.

Smaller towns are looked after accordingly.

I have made a careful examination of the county buildings and find them in good sanitary condition, except the jail, a brick and stone building, which is illy ventilated; no sewerage system; a large vault under and at the rear is used as a receptacle for excreta. During the year there have been confined 224 prisoners. No serious sickness nor deaths occurred.

The poor asylum is a model house for our poor unfortunates, and the inmates' every want is gratified. Inmates at present are 34—18 males and 16 females. Five are insane. Twenty-two were admitted during the year; 2 children were furnished with homes; 2 were sent to the Soldiers' and Sailors' Home; 3 deaths occurred.

The courthouse is a two-story brick and stone structure with basement, in which are the hot air furnaces for heating entire building, and the closets for men and women.

As to vital statistics at large: Number of marriages, 276; 3 colored; children born, 545, 5 colored, male 264, female 281; 6 plurality births; 12 illegitimate. Deaths 394, 4 colored. There were reported 60 cases of smallpox, no deaths; no individual who had been vaccinated contracted the disease; 44 cases of diphtheria and membranous croup, 15 deaths; 8 cases scarlet fever, 1 death; 24 cases typhoid fever, 17 deaths; 15 cases measles, no deaths; 3 cases chickenpox.

From the above I am led to believe that all contagious diseases, and more particularly typhoid fever, are not reported. Fifty-one deaths were reported from pulmonary consumption, and the remaining 310 were from various causes.

DAVID J. CUMMINGS,
Health Officer.

KNOX COUNTY.

During 1900, in the performance of my duties, I wrote 684 letters and 372 postal cards. I printed (per hektograph) and mailed 217 circular letters; printed in the same way and caused to be posted 23 notices. Made 27 investigations of reported unsanitary conditions, and made inspections of 69 school buildings. I condemned the public school building at Decker, and there has been a new building erected in its place. On complaint of citizens of Bruceville, I inspected the public school building of that town and found its sanitary condition very bad, reported same to the County Board of Health, and, as a result, there has been a complete renovation of the said building, new floors were put down, walls repapered, and a gen-

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eral repairing was done. Instead of the former mode of heating (by large cannon stoves) a furnace was incorporated. Great dissatisfaction was caused by the amount of money that was expended in placing a furnace in this building.

I found one almost universal fault existing when I made my investigation of the conditions of the country school buildings, viz., the condition of the privy vaults—their situation and the relative position of the buildings for the sexes. In almost every instance there was little attention paid to the matter of separating the building for the boys from the one for the girls. They were situated too near each other, and in most instances there was not even a pretense of a screen between the buildings. In many of them the doors were broken off the hinges, weatherboarding was kicked or broken off and occasionally I found that a small building had been erected without even a hole dug underneath to receive the offal. Of course an order was issued and these conditions corrected in so far as we had jurisdiction. Whenever it was possible, they were required to separate the two buildings at least one hundred feet. They were required to erect a blind or screen six feet high and never less than fifty feet long. In no instance did we permit these buildings to remain in immediate proximity to each other, which had previously existed. The great danger of such a thing needs no explanation. The conditions have been very much improved and our acts were commended. We are now endeavoring to have passed a rule which will hold the teacher responsible to the Trustee for any damage done to these buildings during school hours, and the teachers will also be advised to make such rules to govern the acts of the pupils during said period and respecting the destruction of the school property as will enable them to have recourse against any pupil that wantonly destroys or defiles any of the said property.

The pupils of the country schools are required to be content with but very few of the modern conveniences such as are furnished the pupils of our city schools. A sketch would be required to give a fair conception of the arrangement of the doors, the windows, the seats, the stoves with which the buildings are heated and the position in which the scholars are required to sit and study and receive the light, the heat and the ventilation. As a rule the blackboards extend around the schoolroom on three sides, the front wall being taken up as a place to hang the wraps and dinner pails ("full dinner pails"). These buildings will average 18x30. The amount of air space allotted the children is never to exceed 200 square feet per pupil, and seldom is that amount given. I realize that there is plenty of opportunity for the ingress of fresh air—that is, if we only consider that part of the pupil's needs. But certainly they must have an arrangement for the egress of the foul air or there will be a stagnation, and beyond any doubt that is just what they get in those country buildings. Those large crevices under the doors and along the sides of the windows would permit plenty of fresh air to enter if any provision were made for the taking out of the bad air, but we all know that such is not done. If any man can figure out the current of air—that is, the direction that it takes and where it gets out of those buildings after it has become loaded with foulness—he is certainly a good fellow to consult. The fact is, keep those rooms well ventilated during the cold days of winter and you are certain to freeze the scholars.

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And as regards the heating of those buildings, it does seem that the subject has been discussed so much that there is nothing more to say, and it would seem that it has been given up that there is no way to avoid the awful results of heating those rooms as has been the mode for a century.

But I contend that we are wrong in our conclusions. They can be averted. But to do so we must, at the same time, dispense with the stoves set up in the center of the rooms and remove them entirely. Heat the rooms just as they do our coaches on the railroads, those up-to-date ones. Put the heater out in some adjacent small room and then run pipes around the sides of the rooms, and take the heat into the rooms through those pipes. This, of course, would necessitate a little more outlay just at the time, but in the end would prove the cheapest.

A modern system of furnace-heating has been placed in two of the graded school buildings during the year, in that of Decker and of Bruceville.

In the matter of improved sanitary condition of our public buildings in this county, but little was done during the past year, but the prospects for 1901 are flattering indeed. I shall speak of these prospects while recording the present conditions.

ST. VINCENT'S ORPHANAGE.

This is a home or orphanage for the Catholic orphan boys of Indiana, and is maintained by the Catholic Church of Indiana. It is in the immediate charge of the Sisters f Providence. As to the sanitary condition of this home I can only repeat my statements of former years and say that it is as near perfection as perfect methods and persistent care and diligence can make it.

Below is a statement of the number of orphans retained here during 1900, and also some other important data:

Number of orphans in home January 1, 1900, 90; number of orphans in the home December 31, 1900, 105; number of deaths during 1900, 2; cause of deaths, eating peach kernels, poisoned. No contagious disease among boys during year, except one case of tuberculosis. This case developed after the child was admitted to the home. This boy is 14 years old, and is reported as improving in health.

The boys are given exercise regularly, but do not have gymnastic work, a thing that this board has requested should be introduced.

The dormatories of this institution are always in perfect condition. Enter it when you may and they will always be found faultless. One of these is 92x20 feet, with 12-foot ceiling, and domicile 79 children. Another is 53x29 feet, with 15-foot ceiling, and 26 children sleep in this room. These rooms are well ventilated at all times.

The building is heated by steam, the amount of radiation being well proportioned.

At the suggestion of this Board the management had fire-escapes placed about the buildings during the past year.

In addition to being well housed, well clothed, well bedded, well and carefully educated, these boys are also judiciously and well fed. The fol-

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lowing is a statement of the average bills-of-fare given them, although they occasionally get treated to some spreads that would entice the appetite of any lord:

For breakfast—Rolled oats, milk, bread, malt, coffee.

For dinner—Meat, vegetables, bread, milk.

For supper—Hominy, rice, fruit, bread, tea, milk.

Each one is allowed all he wants at each meal; no child is ever permitted to leave the table hungry. Best of table manners are taught them, and before they are permitted to enter the dining hall each boy must make certain that his hands, his face and his clothes are clean and well brushed. They are taught that cleanliness is godliness.

THE KNOX COUNTY INFIRMARY.

January 1, 1900, there were 22 people in this infirmary. December 31, 1900, there were 29, an increase of 7 people during the year. Of this number 24 were males and 5 females, the males being greatly in the majority. There were four deaths during the year—1 male and 3 females. Cause of deaths being two consumption, one senility and one puerperal fever.

Discharged during the year, 23—males, 13; females, 10.

There were three births in infirmary during the year. Conception took place previous to being admitted to institution.

In answer to a question, "Were there cases admitted to the institution during the year that were afflicted with tuberculosis?" the answer is, yes. The diseases afflicting the inmates were tuberculosis, la grippe, syphillis.

During the year a modern system of steam heating was incorporated in this building. It is very successful, and those in charge of this institution declare that the effect on the health of the inmates has been very marked. Other improvements were made in this building, and now it is very satisfactory as compared with its former condition. It is well kept by the present management, and those visiting it will find it far above the average county infirmary. One criticism I have to record of this, as of other institutions—too little attention is given to the keeping of perfect records of the inmates and doings of the institution.

The food given the inmates is abundant and of excellent quality. The management of this farm on which the infirmary has been located is good. The farm is well tended and has now become almost self sustaining. Those men and women who are able to work are required to do most all of the work of the farm and institution. This and other things conducive to good health results in the health of the men and women being most perfect. If men or women arrive at this place before they have become seriously ill the rule is that they live to an advanced age.

THE KNOX COUNTY ORPHANAGE.

These people are now located in one of the best arranged and best equipped buildings of its kinds in the State. Every modern convenience is provided and there is no reason why this should not be one of the very best orphanages in the State.

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On January 1, 1900, they had 36 orphans in this home, and on December 31 they had 42—25 males and 16 females. Admitted during the year, 29—males 14, females 15. Given out during the year, 19—males 7, females 12. Number of deaths during the year, 5. Causes of death: 2 blood poison, 2 pneumonia, 2 dysentery. It will be observed by referring to the above figures that as there were 36 in the institution January 1, and there were admitted during the year, 29, there would be a total of 65 in the home. But they report 19 given out and 5 died during the year, making a total of 24 of the 65 taken out, and would only leave a total of 41 in the home, while we have 42 reported. The question arises, where is this extra child, or, where did it come from? I called the matron of the home up by 'phone and asked her for an explanation, and for my trouble I was assured that I was wrong and that she knew her business, and if I thought different I could hunt the child up myself.

This again brings up the matter of better and more carefully kept records of the history of those who are admitted to our orphanages and to our infirmaries. To treat this matter lightly is evidence of a lack of appreciation of a most important matter, or it proves a willingness on the part of some people to do just as little as possible just so they can draw their salary. Can it be possible that there are those who would belittle the importance of these records? If so, their knowledge of things important is very limited. An order, the intent of which was to correct this fault in the institutions of Knox County, was issued and sent to those in charge of the various institutions of this county, but it seems that but little attention has been given it by certain parties. That any person would treat an order of the importance of that indifferently can hardly be imagined, but it is a difficult matter to induce some people to do anything that causes extra labor.

THE KNOX COUNTY JAIL.

This is the same old disgrace of the past, but the disgrace will very soon be lifted, and a new and modern jail will take its place. The Commissioners have decided to build right away, and have advertised for plans.

The present jail has been full most of the past year. Considering the kind of building that it is, it has been well kept during 1900.

There has not been much illness among the inmates except of that which was always contracted outside. We always have this class of criminals with us. I have observed in many instances that the parties had committed some trivial offense for no other purpose than to get placed in jail and there get treatment for their ailments. Nothing but the whipping-post will ever stop this kind of criminality.

In my next annual report it will be a great pleasure to be able to report to the world that our present old and dilapidated jail is a thing of the past, and will point with pleasure to a modern jail, with every provision made for taking care of our criminal classes in a manner that will not only enable us to treat all as they should be treated, but will also give us opportunity to practice a precaution against those foul of foulest diseases which certain classes invariably carry into jails when taken there.

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CONTAGIOUS DISEASES.

When we first began to contemplate the writing of this report we addressed a circular letter to a great majority of our physicians, the import of which was as follows, viz.:

"Office of the Knox County Board of Health.
"Vincennes, Ind., December 10, 1900.

"Dear Doctor—In making my annual report to the State Board of Health. I desire to record therein the observations of all of the leading physicians of this county in cases of contagious diseases which have occurred in their practice during 1900.

"I shall not attempt to dictate to you the phases of said diseases that you shall report, but prefer to leave that to your judgment and desires. Whatever has suggested itself to you as being of importance we would be glad to receive.

"Respectfully,
"LYMAN M. BECKES, M. D.,
"Secretary of Knox County Board of Health.

"P. S—Inclosed please find a stamped envelope which kindly use in making your report.

"L. M. B."

I sent out 65 copies of the above circular letters and received in reply eight. Just why more did not report I have not been able to learn. That all physicians of the county treated cases of contagious diseases during the year can not be doubted for a moment.

During the year there were 44 cases of scarlatina reported to this Board. This was not the total number of cases that occurred in the county. So many of our physicians have a wrong idea as to the reporting of their cases. If they have a case in a family and report the first one, no matter how many more occur, they are seldom reported. I have tried to gather such facts as would enable me to estimate about the number of cases that have occurred in this manner and were not reported. It is my opinion that at least 125 cases were not reported. I find that in the majority of cases the attack was light and in many instances no physician had been called. In still others there had been attempts made to deceive as to the true character of the affliction, and again it was argued that scarlatina and scarlet fever were as separate and distinct afflictions or diseases as could exist.

The first case of this epidemic was contracted in a neighboring county and town and the family where the contagion existed believed that their children just had worms, which had caused the stomach trouble and also the eruption. They said they had been informed that worms caused just such an eruption and other symptoms such as their children had experienced. So that we can certainly say that this epidemic was not of a sporadic origin. What is true of this case was also true of other cases, and they were traceable directly to other cases of undoubted origin, as well as being highly contagious. Cases that had been called ulcerative sore throat, or follicular tonsilitis, or simple tonsilitis had afflicted several

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members of a family, and the neighbors' children who had played with those afflicted ones had just the same kind of affliction, and a physician was called and pronounced it scarlatina. The cases were mild and in many instances the quarantine would be lifted just when desquamation was beginning. Some of these children were sent to school and the first that any word was brought to the health officials was when a physician was called to see a case which was properly diagnosed, and on making inquiry as to the possible source of the contagion, the patient informed him that a certain pupil who sat near them in school had been picking scales from off his hands for a certain period and that this same pupil had been kept out of school for several days about two weeks previous. Of course that physician notified the officials at once. This occurrence and similar ones led up to those cases which make up the third class referred to above; that is, the physician either made it appear that the cases were of slight importance and not at all dangerous, and paid little or no attention to quarantine, or else he lost his job and another doctor who would fill the bill was called. It is an awful fact for any official to record as a positive fact, but it is none the less true. It is a fact and as true as man can state. But this awful state of affairs and this criminal practice was a fact in many instances. It is true that we had cases where, if the physician insisted that the State laws and the rules of the State Board of Health should be obeyed, he was dismissed and another physician called. You see, then, how one condition has led right up to another, and now we have called up for consideration that source of contagion which resulted from the advice of such physicians as those who will advise the parents and the people that scarlatina and scarlet fever are separate and distinct afflictions; that it is not necessary to quarantine cases of scarlatina, it not being dangerous. The conscientious and law-abiding physician had wanted to do his duty, and also advised the parents to do likewise. Those parents had known of some other cases in which quarantine had not been maintained, and the parents had now had the advice of the careful doctor, and as it was only a mild attack of scarlatina they were willing to trust the health of their child to another because he would permit them to do just as they pleased. They were willing to risk it all just for a few temporary pleasures. And this, too, regardless of the manner in which their acts would endanger the health, the comfort, the very life of other children who might chance to come in contact with them.

I have dwelt at such length and stated the above facts thus simply, thus candidly and thus fearlessly because it does not seem possible that a more perfect demonstration of those very dangers could be imagined, much less to have occurred.

I realize that the question which will at once arise in the minds of all those who chance to read this statement will be, What was done to prevent all of those dangerous happenings and practices? I answer that we attempted to do all that the law declares shall be done. Did we succeed? No, a thousand times no. Don't ask me to again tell you why. It has been told too often already.

I realize that there are but very few people who are not interested in this matter and who would not desire that it could be corrected. I say there are but few, and it is true, for it is hard to find a man or woman who

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will not be in favor of a reform just so they are not affected, and as all are aware, only a small per cent. of the population is afflicted at the same time.

This time, when we can have this reform complete, will only come when our people are educated to that extent that they will realize that there is always more pleasure and genuine happiness—that kind of pleasure and happiness that is lasting and not just for the moment. This statement suggests a truth that I must enter just here, for it is as applicable: Pleasures which result from an act or a deed that was not right are only temporary. They are not lasting. But pleasure, happiness and joy which result from acts and deeds which are right are lasting; they are intense, and no man ever regrets his acts and deeds.

On the other hand, man is daily experiencing the unpleasant results of his acts if they were not right. No matter what intensity of joy he might have experienced just at the moment of his act, the results are certain and he will afterward know the folly of his doings. Retribution might be slow, but none the less certain to come.

Why, then, should it not be a good practice for Health Officers to be constantly bringing this truth before the people by keeping a line setting forth the said truth—a line which would stand at the head of every letter, every rule, every circular, every statement brought to the attention of the people or to individuals, and thus educate them to an understanding of the aim and intent, and the certain results of obedience to health laws and rules, and in united efforts of all.

COUNTY STATISTICS.

There were 47 cases of scarlet fever reported to this Board—males 11, females 36; white, 46; colored, 1.

Grouped Ages.—One to two years, 1; two to three, 6; three to four, 3; four to five, 3; five to six, 3; six to seven, 7; seven to eight, 3; eight to nine, 2; nine to ten, 2; eleven to twelve, 2; thirteen to fourteen, 3; fourteen to fifteen, 3; fifteen to sixteen, 2; sixteen to seventeen, 2; seventeen to eighteen, 1; twenty-one to twenty-two, 1; twenty-four to twenty-five, 2; forty-six, 1.

Scarlet fever caused but three deaths during 1900—one male, age 12, and two females, age 3 and 5. This is indicative of the mildness of the disease during this epidemic. But it does not tell the sad results. There were other deaths reported to have been the result of other causes, but if the truth were known, the cause was traceable back to one of those mild attacks of scarlatina.

There were 40 cases of diphtheria and membranous croup reported during 1900. The ages of those afflicted were as follows, viz.: One year of age, 1 case; two years, 6; three, 3; four, 3; five, 3; six, 7; seven, 3; eight, 2; ten, 1; eleven, 1; twelve, 1; thirteen, 1; fourteen, 1; fifteen, 2; eighteen, 3; twenty-two, 2.

What has been said above in regard to scarlet fever is also true as to diphtheria. All cases of this disease were not reported, and in some cases they were called tonsilitis or laryngitis, or some other disease. There were

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twenty-four deaths reported as a result of this disease, so that if the cases reported represented the facts, this would be an awful death rate. One patient was reported to have died of "sore throat." Every man can draw his own conclusions from a report of that kind. Of the fatal cases, thirteen were females and eleven males. Most of the deaths occurred at the ages of two to four, and the majority of them were among the country children.

Measles have been epidemic in this county during the greater part of the year, and two deaths were reported to have resulted from this disease. Although there were but sixteen cases reported, it is safe to say that at least one hundred cases have existed. It is an almost impossible task to get the physicians to report their cases of this disease. They declare that if they did the cases would have to be quarantined, and they, in the majority of instances, do not believe in quarantining measles; and they also state as a reason for not doing so, that if they did they would soon lose every family where they had cases, for the people would not stand it and would discharge them and get another doctor. Another argument in favor of educating the public mind on the importance of these matters. We can educate the people up to a sense of right in this work, but we can never drive them to be obedient.

Whoopingcough was also prevalent during several months of the year, and four deaths resulted from this affliction. What was said of measles regarding the reporting and quarantining of cases was also true of this disease. But four nor ten nor fifty nor one hundred deaths from those diseases will ever influence the public mind to an appreciation of modern advanced ideas of right management of those epidemics.

Erysipelas caused three deaths during 1900. The ages of the victims were one month, sixty-three and seventy years, respectively. This has got to be a rare disease in this county.

Puerperal fever claimed four victoms, but this was four too many. They were preventable.

Cerebro-spinal meningitis claimed three victims of the ages of four, eighteen and fifty-three—one male and two females.

Typhoid fever claimed entirely too many victims for us to look to the record of the public health during 1900 with pride. The tale that this record tells is not at all creditable. It is evident that entirely too much filth was permitted to exist somewhere. It is a sad thing to reflect upon this record and be brought face to face with the fact that we might have avoided those very happenings. It is sad to think that it is possible that we might have prevented the suffering and heartaches those afflictions caused. Nineteen deaths resulted from this disease. One boy of six, ten men right in the very strength of their manhood, one girl of six, two of seven, and six women, none of whom had yet attained their allotted years, were the victims. Those few lines contain sufficient food for men and women to reflect upon during the entire year of 1901.

Consumption in its various forms records a most successful year. It found many victims and certainly furnishes evidence sufficient to convince men of the need of greater efforts to find a cure, a remedy, a preventative.

Talk of new departments in our government, but where is there a greater need than that of establishing a bureau of information and investigation to devise means to stop the ravages of this affliction. Twenty-seven men and forty-six women died of tuberculosis during 1900.

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Pneumonia was reported to have caused the death of twenty-three men and twenty-nine women.

The total number of deaths during 1900 was 484, pneumonia and consumption heading the list in the cause of deaths. The preventable diseases are in a great majority in the causation of deaths.

The total number of births during 1900 was 675, and of this number 350 were males and 325 were females. The births only exceed the deaths by 191. There were 354 marriages during the year, and seventeen divorces were granted.

MONTGOMERY COUNTY.

The sanitary condition of the county during the year 1900 has been very satisfactory. But few nuisances have been reported and these were of a trivial nature.

The school buildings of the county are steadily improving, old ones being replaced by modern structures, and the more modern ones are being modified to conform to later demands.

Below is a list of the town Health Officers of this county:

J. N. Taylor, Crawfordsville; R. C. Dunnington, Darlington; A. N. Hamilton, Waynetown; A. J. Kleiser, Waveland; A. L. Brown, Alamo; E. V. Price, Ladoga; W. A. Lofland, Linden; F. M. Lynn, New Richmond; J. L. Beatty, New Market; R. F. King, New Ross; J. W. Dickerson, Wingate.

The poorhouse had fifty-seven inmates at the close of the year, and twelve deaths occurred during the year. During the year a cellhouse has been built that is neat and easily kept clean. It has ten cells for men and two for women. The sanitary condition of the poorhouse is as good as is possible with the present building.

The orphans' home had thirty-five inmates at the close of the year. The sanitary condition is satisfactory.

The county jail is in fair condition.

The county courthouse is in poor condition, but many needed repairs are contemplated in the near future.

Epidemics: Typhoid fever, 93 cases; scarlet fever, 84; diphtheria, 43; measles, 38; tubercular consumption, 7. Births, 413. Marriages, 279.

PAUL J. BARCUS,
Health Officer.

A SANITARY SURVEY OF THE CITY OF CRAWFORDSVILLE.

Crawfordsville, suburbs included, has a population a little in excess of 12,000. It is located upon a terminal moraine, thrown up by glacial action, whose structure consists of layers of soil, clay, sand, gravel and hardpan, which is the water-container, and rises some seventy-five feet above the level of the river which washes its base. The drainage is excellent in all directions, a number of deep ravines, debouching into the river, serve to carry off the drainage from the plateau above. The river, extending from northeast to southwest and washing the base of the plateau for a considerable part of the year, serves to carry away all the

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detritus from drainage to a safe distance. The city is supplied with water from the Vancleave Springs by standpipe and direct pressures, which forces it to any desired height throughout the city. The water, tested by Professor Thomas at his laboratory, shows only 250 bacteria to the c. c., none being pathogenetic. It is of great hardness, but clear and palatable.

Up to October, 1900, the city had only 10,000 feet of sewer, public and private; of this 2,700 feet is brick combined. In addition to this it now has 18,500 feet of sanitary sewer, and ere long the entire city will be so furnished, and the old sewers will be abandoned. Many abandoned wells, dry wells and privy vaults are still in use, but it is expected that these menaces to the public health will soon be things of the past. Quite a number of miles of excellent cement walk, with curbing, have been laid in the last few years, and the work is still going on. Street paving is to follow, and the coming summer will witness the paving of several of the principal streets. The temporary methods of the past have been discarded and the city government has resolved that in the future all improvements shall be of a substantial and permanent character.

The school buildings, four in number, are large and commodious, well situated, drained, ventilated, lighted and heated. In the central building the dry-closet system proved not only a failure, but a menace. The Board of Health ordered it out and the building is now supplied with water-closets connected to the new combined sewer. The Willson school building, a large castellated edifice built of Bedford stone, upon the most approved plan, is at present provided with the dry-closet system (improved), but on the extension of the sanitary sewer to that locality this will give way to water-closets.

Not long since the City Board of Health inspected the slaughter-houses which furnish the city with meat. A very exhaustive examination, including a bacteriological examination of the water used in washing the carcasses, was made, and upon the recommendation of the Board of Health the City Council in session adopted a sweeping condemnation of the houses, grounds, water supply, and all relating thereto. The Board of Health was ordered to prepare plans and specifications for new abattoirs, rules regulating the same, and the transportation and handling of meat. Pursuant to this duty the Board corresponded with several prominent Health Officers of the State in order to ascertain what rules governing the slaughter of animals had been enacted in their several municipalities. The replies indicate that the city of Crawfordsville must be a pioneer in this line of reform and that its example should be followed in a great many of the cities and towns of the State. Undoubtedly a constant and formidable menace to the public health is to be found here, and it is more than probable that many disorders with which the public is afflicted originate in filthy slaughter-houses and in the careless transportation and handling of meat.

It should be said, in conclusion, that the entire City Board of Health takes part cheerfully and zealously in all investigations, and follows up its recommendations by such personal effort as may be required, while the City Council always accords a respectful and attentive hearing and promptly lends the authority required by the case.

JOHN N. TAYLOR,
Health Officer.

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OHIO COUNTY.

In making my annual report, to September 30, 1900, I wish to say that the health of our people in Ohio County for the last year has been fairly good. There have been a few cases of contagious diseases reported, but in no case has there been any spreading of the contagion, as every case was strictly quarantined and the disease immediately checked. Physicians in Ohio County are careful to report all contagious diseases as soon as they are detected.

Ohio County has a population of nearly 5,000. The drainage of our county is natural and perfect. Rising Sun is the county seat, with a population of 1,600. It is located on the Ohio River and noted for its beautiful location, clean streets and fine surroundings. The water supply of Rising Sun is from driven wells and cisterns. The courthouse, jail and high school are of brick, and warmed by the use of stoves. There is also a small school building of frame for the use of the colored children in our place. County asylum is located four miles west of Rising Sun on a high hill. It is a frame structure, containing twenty-six rooms, and was erected in 1887. It is warmed by the use of stoves. The location of this building is excellent and drainage good. The water supply is from cisterns. There has been but little sickness of the inmates in the last year, and no deaths. At present there are five inmates.

The number of deaths in Ohio County to September 30, 1900, from all causes, was 71, viz.: Tuberculosis, 9; pneumonia, 8; valvular disease of the heart, 5; inflammation of the bowels, 4; senility, 6; cholera infantum, 2; heart lesion, 1; malarial fever, 1; meningitis, 1; typhoid fever, 1; dysentery, 2; Bright's disease, 1; remittent fever, 1; acute myocarditis, 1; pustular, 1; enterocolitis, 2; broncho-pneumonia, 1; old age, 1; cerebro-spinal meningitis, 1; chronic affection of the heart, 1; cancer of the breast, 1; typho-malarial fever, 1; chronic intestinal catarrh, 1; cerebral softening, 1; acute Bright's disease, 1; measles, 1; paralysis of abdomen, 1; chronic bronchitis, 1, paralysis, 1; chronic diarrhea, 1; acute gastritis, 1; malignant disease of the kidneys, 1; debility, 2; la grippe, 1; brain trouble, 1; congestion of the brain, 1; chronic gastritis, 1; cerebral apoplexy, 1; gunshot wound, 1; spinal sclerosis, 1.

G. A. STEVENSON,
Health Officer.

OWEN COUNTY.

As Secretary of the Owen County Board of Health, I submit the following report for the year ending September 30, 1900:

During January and February smallpox in an epidemic form invaded the western part of Owen County. The disease was, generally, mild, though some cases were confluent and severe. There were no deaths. Clay City and the country surrounding it had smallpox in an epidemic form the pre-

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ceding fall, and not until the middle of January was the disease recognized or any attempt made to suppress it so far as I know. In fact under such terms unknown to science as "Porto Rican chickenpox," Cuban itch," and "Illinois scratches," the disease was given a certificate of good character and turned loose to roam at will. The people, generally, did not indorse the diagnosis of some of the physicians and became alarmed at the severity of some of the cases and its alarming spread. Finally, some of the medical profession determined not to call the disease by its right name of smallpox, because it did not present itself in its more ugly aspect and kill its victims as it did years ago under bad sanitary conditions brought out old musty volumes of Wood's and Eberly's practice long since antedated and never consulted by modern physicians, found the strange and rare disease known as pemphigus, and the public were informed that experts like Drs. Hurty and Brayton were simply mistaken as to the diagnosis and that the epidemic was pemphigus pure and simple, and that it would not return again for probably a century. A medical man here and there throwing doubt on the diagnosis made it extremely difficult in some instances to control the disease. Owen County was infected from Clay City quite awhile before the Health Board here knew of its presence, so that on January 16 there were fifty or sixty cases in and around Denmark and Woodside, small villages in Marion Township. Vigorous methods were at once adopted by the Owen County Board of Health to suppress the disease and prevent its spread. Aided by nearly all the physicians and the citizens generally in the infected locality, the epidemic was under control in a short time.

Vaccination and revaccination was urged and generally complied with; schools in the infected locality closed; guards or patrols put over the infected houses. The expense to Owen County was about six hundred dollars, besides the suffering and loss of time to those who necessarily had to be quarantined on account of the exposure to the disease. Only two among all the infected had been vaccinated and these two during the civil war. The disease was confined very largely to adults, but few children being affected. I am glad to state that outside of the places mentioned no other towns or neighborhoods were affected and business went on in the usual way.

Gosport and vicinity had an epidemic of measles early in the spring. Some of the cases were malignant, with one death. It is strange that a great many people fondle and court this soft-footed and dangerous beast when it is known that three or four hundred people in Indiana die annually from this preventable disease, and no one can tell the number crippled for life because of its ravages.

The usual number of cases of typhoid fever, with the usual per cent. of deaths, are annually reported to this office, so that Boards of Health can almost to a certainty tell beforehand the number of cases and deaths from this dangerous disease. In spite of all the warnings by Health Boards, the people go on drinking water from questionable sources. If this one question of a pure water supply could be controlled and physicians would take the pains to instruct their patrons how to care for and destroy all typhoid discharges, this scourge to our young would practically cease. Is it not worth continued effort of Boards of Health and physicians and all others who know the dangers of this purely filth dis-

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ease to keep up their efforts along this humanitarian line? I am glad to announce to the Board that during the past summer and fall four one-room sanitary schoolhouses have been built in Owen County. These houses are frame, with solid foundations of stone, the light all from one side, a stove walled in with brick in one end of the building, a fresh-air duct leading from the outside under the stove where the fresh air is warmed and projected into the schoolhouse. The foul air escapes through the cloakroom. On account of the contractors in some instances not understanding the plans, the heating in some of the houses is somewhat defective, but this defect is being remedied, and when thus remedied will be far superior in every way to the old plan. This reform in erecting sanitary schoolhouses, and so greatly needed, has met with some opposition from those who did not understand it, from others who are always opposed to innovations, and others from sources we should expect help in bringing about this sanitary reform. Notwithstanding all the opposition, Owen County has the proud distinction of building the first one-room sanitary schoolhouse erected in Indiana.

Heretofore I have called the attention of the Board to the unhealthy, unsightly and dangerous condition of the hitchrack around the public square. Your attention is called to this matter again with the hope that the County Council may provide means at once for getting rid of this nuisance. I suggest that a suitable site for hitching and sheltering purposes be purchased and that the hitchrack be abolished. If this can not be done, then pave the whole rack around the square with vitrified brick, and have it cleaned daily. As it now is it is cruel to the animals and a menace to the health of our citizens.

Your attention is called again to the unsanitary condition of the jail. It is unfit in every way to confine criminals. Besides its unhealthy condition, there is no way of separating the sexes or the confirmed criminals from those guilty of minor offenses. Owen County owes it to her good name to get rid of this standing disgrace at the earliest possible time.

The county asylum is in as good sanitary condition as is possible for a building of that character. The whole house needs adamant walls, iron bedsteads, a heating apparatus that will warm the whole building, hot and cold water in abundance and separate bathrooms for the sexes. A new two-room modern house should be built on sanitary plans for the idiotic and hopelessly insane, the old one being wholly unfit for the purposes for which it is used.

In closing, I desire to state that in the past four or five years there has been a marked advancement along sanitary lines in Owen County. Papers on contagious diseases have been read before farmers' institutes and lectures given on health topics. The Secretary is now often consulted on health questions and duly apprised of any threatened epidemic appearing among the people, and the health of our citizens is looked after by Boards of Health as never before. The meager salary paid the Secretary is now no longer begrudged him, for all the people are beginning to realize that Boards of Health that fearlessly do their duty not only save many lives but thousands of dollars each year in looking after the health of the people.

NATHANIEL D. COX,
Health Officer.

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RANDOLPH COUNTY.

Names of incorporated cities and towns, with names of present Health Officers: Winchester, F. A. Chenoweth; Union City, Wm. Commons; Lynn, C. R. Cox; Ridgeville, A. H. Farquhar; Farmland, John Nixon; Parker, A. G. Rogers; Losantville, H. P. Franks; Modoc, W. D. McCormick (resigned).

Population, 30,212; altitude, 1,101; highest in the State. No marshes nor bogs, being well tiled.

Of "dangerous diseases" reported was diphtheria, 18 cases, one death (I can only give deaths to July 31, not having received last quarter's record); tuberculosis, only one case reported, 27 deaths; scarlet fever, 27 cases, 1 death; measles, 17 cases, no deaths; enteric (typhoid) fever, 18 cases, 1 death. The diphtheria we have had has been strictly quarantined and thus, we hope, we hold it at bay. Only in two cases have schools been closed, and in both cases on account of diphtheria. These will be fully shown by appended reports by Drs. Commons and Farquhar. It is my practice to strictly quarantine all cases of contagion and keep the schools open. This course has proved satisfactory.

Our infirmary is situated two and one-half miles south of town on the Richmond pike, and contains 280 acres. Through this runs a never-failing stream of pure water, fed by springs. The building is situated on this stream at an elevation of fifteen feet, thus giving excellent facilities for drainage. A magnificent new building of stone and brick, costing about $45,000, is just completed. It is covered with slate, is four stories high, including basement and attic; has sixty-seven large rooms, with ample corridors and stairhalls; the whole heated by hot water. Heat and light are obtained from two natural gas wells belonging to the county. This magnificent building is so perfectly heated, lighted and ventilated that scarcely an unpleasant odor will be detected in the coldest weather. Basement is full size of building and contains storage rooms, engine rooms, kitchens, dining-rooms and laundry. The sexes are separated at all times, above and below, by permanent brick walls. The water supply is from a driven well ninety-three feet deep. Sewage disposal is by automatic dump and flush to every sink.

Inmates during year: Male, 18; female, 21; total, 39. Number of deaths: Male, 4; female, 1. (One inmate is a soldier's widow and is here by her own choice). We do not allow old soldiers to occupy our poorhouse. We honor them too much. Our infirmary, if not the best, is second to none in the State. We think it will be self-supporting in the near future.

The jail and courthouse are described in my report of 1898, p. 410. They would be in good sanitary condition were it not for the Smead system for disposal of excreta, which is a curse and an abomination. It reminds one of an antebellum dissecting room. There has been no sickness in the jail.

The James Moorman Orphans' Home is two miles west of town. It is described in my report of 1898. Its inmates number 18 males and 11 females, the youngest being nineteen months. The wife of the superintendent conducts a Sunday-school at 2 p. m. each week. Before retiring

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all kneel beside their snow-white single cots and in concert ask God's protecting care for the night. There has been no sickness here during the year.

Following is my survey of all schoolhouses in the county:

Sanitary Report.

District No.....Township.....
Name of Teacher.....
Number of pupils enrolled—male....., female....., Total.....
Size of School lot.....acres.
Is it elevated, flat or low?.....
Is it underdrained with tile?..... Is building frame or brick?.....
Does building front east, west, north or south?.....
What is size of building?..... What is height of ceiling?.....
Number and size of windows and how high from floor?.....
Where are windows situated?.....
Are windows shaded, and how?.....
How is room heated?..... How ventilated?.....
How many separate cloakrooms?.....
How often is floor scrubbed and oiled?.....
Is well driven or dug, and how deep?.....
Is the water pure and healthy?..... Are there vaults or sliding boxes to privies?..... How often are they cleaned and disinfected?..... Have you seats and desks suitable to sizes of pupils in attendance so they do not have to sit in a stooping position?..... How many of your pupils have been successfully vaccinated?.....
In what part of the schoolroom is the stove or grate situated?.....
Can you keep all parts of room comfortably warm?.....
What kind of fuel is used?..... Have you a thermometer?.....
Will a new building be erected in the near future?.....
Remarks and suggestions.....
.....
.....
.....

Kindly fill out and return at once to Randolph County Board of Health.

R. BOSWORTH, M. D., Secretary,
135 N. Main St., Winchester, Ind.

By this we are furnished data by which we can correct defects in light, heat and ventilation, or any other unsanitary condition. Most of them need it.

Respectfully,

R. BOSWORTH,
Health Officer.

Local Boards report as follows:

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UNION CITY.

In response to call I herewith report sanitary condition of Union City: The business is conducted same as reported to you two years ago, to which you are respectfully referred. The same also for schoolhouses and other public buildings. It is the very best. Drainage is good and cesspools are not allowed. But one pool of stagnant water exists, and this occurs in wet weather. It involves a question of law as to fixing responsibility and is now in process of adjustment.

We have had no epidemic of contagious disease during the last year. On October 21 a case of scarlet fever was reported in a family on South Howard street. The family consists of parents and three children. Quarantine and usual conditions were enforced. All the children were affected: all recovered. Our town is now free from the disease. A case of typhoid fever is reported on Union street in a family of ten. Patient forty years old, and a section-hand. House unsanitary on account of imperfect drainage across State line. Hard to remedy on account of disagreement between councils of our double responsibility.

In October an epidemic of diphtheria appeared in School District No. 1, in the northeast corner of the county. By your direction and as your deputy, I investigated and found the disease had been imported from Jay County. I dismissed the school, Sunday-school and religious services at local church, quarantined all infected houses, and placed all suspects under surveillance, made Mr. Wm. Stocksberry local Health Officer, and gave him full instructions, myself visiting the locality to render what assistance I could. Mr. Stocksberry acted with energy and judgment and neighborly solicitude. The disease has been stamped out, with a dozen cases and two deaths. Your thanks are due Mr. Stocksberry for his assistance in the case. We have the house of Mr. Charles Arnold quarantined. The family consists of parents and five children, aged one, three, five, seven and nine. Have been infected with scarlet fever since November 5. My own family being dangerously sick, I have not given this case as much attention as I otherwise would have done. Four of the children are sick; none will die. The contagion was brought from Ohio, nineteen miles northeast of town. Malignant diphtheria is now in a family of ten, six miles northeast of our city, in Darke County, Ohio. The disease originated in the house. It is a clear case of dirt. The sanitary condition of the house is very bad, made worse by a poor, ignorant, filthy family. Three of the children have died, and four are now sick. The Township Trustees have charge, and hope to confine the pest to that house. Foregoing is correct sanitary condition of our city and its surroundings, which you will notice, so far as contagion is concerned, is altogether in the surroundings.

WM. COMMONS.

LYNN.

We have no stagnant ponds of water. Drainage is good. Sewers on three sides of town. Have no privy vaults. Excreta is mostly hauled away and buried. Only a few hogpens in town, and precautions are taken

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with them. Our school building is old. It is heated by natural gas. Lot is high and rolling. Light and ventilation in school building is bad, but can not do better until a new building is erected, which we hope to have before another school year.

C. R. COX.

PARKER.

I have had our town put in fair sanitary condition. The town is now well drained with ditches and sewers. Privy vaults are entirely done away with, and excreta carted away and destroyed. Our water supply is not the best, being mostly from dug wells. I had a bacteriological examination of water from our schoolhouse well the week before school begun, and Dr. Potter, who made the analysis, pronounced it unfit for use, on account of containing intestinal bacteria. I condemned the well and removed the pump. Anything I can do I am willing to do.

A. G. ROGERS.

RIDGEVILLE.

I have the honor of presenting herewith my first report since assuming the duties of Secretary of Ridgeville Board of Health, August 1. The town was not in the best sanitary condition, as the Board of Health did not last spring require the general sanitation of the town, as the laws prescribe. Notices were at once issued requiring residences, out buildings, lots, alleys and streets to be thoroughly cleaned and rubbish removed therefrom: so the town was put in as healthy condition as possible for so late in the year. The town is pleasantly located on an elevated tract of land, with good natural surface drainage. In addition there are numerous surface tile drains beneath low places, so that no stagnant water accumulates. The basements and cellars of all public and private buildings are provided with good sewerage. The number of typhoid cases hereafter to be reported will show the sanitary condition not so good as desired. The total number of births reported to December 1, were 22—9 of them males and 13 females; one pair of twins included in the number. The contagious and infectious diseases reported are as follows: Whooping cough 9 cases, scarlatina 1, measles 2, typhoid fever 7, and diphtheria 4. The typhoid cases were all mild and all recovered. The first case of diphtheria was first pronounced croup; the peculiar membrane did not appear above the larynx till a few hours before death. The second case began as an ordinary tonsilitis. Both cases proved fatal. After making faithful investigation no evidence appeared that any of the cases had been exposed to contagion.

A. H. FARQUHAR.

FARMLAND.

Santary survey has been made and I consider the town in good sanitary condition except the stock yards, and they are making arrangements to have them removed.

JOHN NIXON.

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WINCHESTER.

In compliance with Rule 23 I hereby make this report of the existing conditions of the city of Winchester. I have carefully inspected the city, with the committee appointed by the Mayor, and we found the city in a very good condition. Although we found quite a number of pig sties, they were at the time of inspection kept clean and very little accumulation about them. There were some people who required some urging to keep their premises in that condition, but all seemed inclined to obey the orders of the Board of Health.

The schoolhouses are fairly ventilated and heated. The central building has a very good system of heating and ventilation, while the ward buildings are heated by stoves and the ventilation is regulated by the windows and doors. The sewerage of the city is bad, mostly surface drainage. There should by all means be a complete, up-to-date sewerage system for the city. There are no house closets that are used emptying into the creek that runs through the town. There are a number of closets, but the owners have informed me that they are not in use and are, in some cases, disconnected. The vaults are nearly all of the dry closet variety and are kept in a very good condition by having them cleaned by a professional vault cleaner.

There have been several cases of typhoid fever so reported and many cases of catarrhal and malarial fever with a typhoid condition present. A number of the physicians have promised to write me as to the suspected cause of the cases in their practice. There has as yet been but one who has written anything concerning those cases. There has been but one case; that occurred within a block of Salt Creek, and that case they could not attribute to the drinking water, as the patient used water from a drilled well and there had been no evidence of his having drank any water from a dug well. There was but one case in that family.

In the cases that came under my charge, I could trace none of them to the drinking water, as there was but one case in each family and that case not of a malignant type. I was and am puzzled as to the cause of the disease. Is it possible that it was on account of atmospheric conditions? I hardly thought so, as, if that had been the case, there would surely have been many more cases. Was it on account of fruits and vegetables? I can freely say I don't know. All I know is that we had the disease in our city, with very few cases in the country, and none of these cases were of a malignant type. There have been some cases of catarrhal sore throat in the city, but no cases of diphtheria or scarletina have been reported this fall.

I understand there has been little sickness in the jail, but none of that was from any unhealthy condition of the premises, as it is kept clean, and there is good ventilation to the cells.

F. A. CHENOWETH.

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RIPLEY COUNTY.

I hereby make annual report of the sanitary condition of Ripley County for the year 1900:

The jail building is in better sanitary condition than formerly, as drainage has been perfected. No sickness of a serious nature has occurred among the prisoners during the year last past.

The courthouse is now undergoing extensive repairs, and when completed it will be all that health and convenience requires. The county infirmary is in good condition, inmates properly fed and clothed and but little sickness among them that could be avoided.

There has been some improvement in our towns in regard to streets and drainage. Especially is this true of Milan, where extensive work has been done in the way of bettering the condition of the streets and alleys. A new school building has been built.

Versailles has good streets and is well drained, and preparations are now being made to build a new schoolhouse, which is badly needed.

Osgood needs better drainage and more sidewalks, although considerable improvement has been made in the latter condition recently. Two cases of varioloid occurred in a camp at this place during the fall, but by prompt and energetic work of the Health Officer and attending physician the disease did not spread beyond the camp.

Batesville has made some improvement in the way of new streets and pavements and drainage. The public school buildings of the town are in good condition.

No serious epidemics have occurred in the county during the year. Physicians are generally reporting deaths promptly and no burials have occurred without a permit, so far as I can learn.

R. T. OLMSTED,
Health Officer.

SCOTT COUNTY.

The general health of the people in this county during the last year has been good. During that period very few contagious or infections diseases have made their appearance.

In Scott County during the last year twenty-one cases of typhoid fever were reported, with two deaths. Six cases of measles were reported, with no deaths. Two cases of diphtheria, and no deaths. Six cases of scarlet fever, and no deaths. With the exception of a few cases of pertussis and a small epidemic of smallpox, which epidemic we will describe later in this report, this is the extent of the contagious diseases we had to contend with during the last statistical year.

Malaria is still somewhat prevalent here, but not in a very severe form. The two types of malaria found here are ague and the aestivaautumnal fever. Ague is the rarer form of the two.

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By reference to former records I am led to believe tuberculosis, especially the pulmonary form, is on the increase, and it seems to me that legislation and the strict enforcement of the health laws offers the best and indeed almost the only means of checking to any extent the inroads this terrible disease is making on the human race.

The following is a brief report of the smallpox epidemic which made its appearance in Scott County in January, 1900: This epidemic was confined to Vienna and Finley townships, which townships border on Washington County, which was the source of contagion. The first case run its course without medical attention, for no one knew or even suspected the patient had smallpox, but he and his family thought he had a severe case of chickenpox. From this case the disease spread to all the remaining members of the family except one, who had been vaccinated some fifteen or twenty years ago. At this stage of the beginning epidemic I was called to see the family and diagnosed the cases smallpox, for by this time the eruption had appeared on two more members of the family. After making a diagnosis I lost no time in carding the house and quarantining all its occupants. However, before establishing a quarantine one of the neighbors had contracted the disease, and on investigation I learned that fifteen persons had been exposed before we were aware that smallpox was in our midst. From those exposures five families were infected. As fast as the disease made its appearance in those families they were quarantined, and as a consequence no other persons were infected.

As for vaccination, in this epidemic it proved to be as valuable a prophylactic measure as isolation, for all who had ever been vaccinated or who were vaccinated within two or three days after being exposed to persons in the eruptive stage, or any other stage of the disease, failed to take it, even though in some cases they were quarantined for weeks with infected persons, and all persons so exposed who never were vaccinated contracted the disease in about fourteen days from said exposure. The eruption appeared in most cases about three days after the appearance of the initial symptoms. The cases were all discrete in form, however, some were almost confluent. We have no colored population in our county, consequently all persons attacked were white. The mortality was nil. We disinfected with formaldehyde, and to the present, January 1, 1901, there has been no recurrence of the disease, so our experience tends to show that by vaccination, quarantine and disinfection smallpox can be stamped out in a very short time.

The schoolhouses in Scott County are in a fairly good sanitary condition. About 40 per cent. of them are brick and the remaining 60 per cent. are frame. A majority of them, especially those built in recent years, are an improvement on the old-time house, as the drainage of the premises and the ventilation and lighting of the house is now claiming more attention in schoolhouse architecture. The worst defect in our schoolhouse sanitation is to be found in their ventilation. Under the present plan many of the country schoolhouses have no provision for the escape of foul air. The fresh air admitted to the room must come through the door or windows, and it must, of course, be cold when it enters and is a direct draft on the bodies of the pupils. The schoolhouse privies are separate in all cases for the two sexes, and are, as a rule, kept in good repair and so located as not to contaminate the schoolhouse wells.

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The county asylum is in a good sanitary condition. It is a brick building of modern style with large and well ventilated rooms, and it is not overcrowded. The sanitary condition of the county jail is good. The courthouse is in a bad sanitary condition. It is poorly ventilated and the office rooms are always damp and musty. The grounds around the house should have a better system of drainage.

W. L. McCLAIN,
Health Officer.

VERMILLION COUNTY.

The following is a resume of quarterly reports to commissioners of most important events for the year 1900., It makes my annual report:

A sanitary survey of the southern townships of Vermillion County was made January 15, being absent three days. Visited Clinton, Dana, Hillsdale, Newport, Cayuga and Montezuma. There being no deputy at Hillsdale the undertaker at Montezuma was deputized to issue burial permits for deaths occurring in this county in order to avoid trouble and delay of funerals, Montezuma being the nearest point to purchase caskets for a scope of country about Hillsdale. The sanitary conditions of the above towns were exceptionally good for the season of the year.

January 21.—Quarantined a house in Perrysville for scarlet fever.

January 23.—Acting under the instructions of the Secretary of the State Board, copies of the Food and Health Laws of Indiana were sent to the Hoosier State and Dana News for publication to appear in two consecutive issues. Two copies of each paper were forwarded to the State Board and the same filed in this office.

January 23.—The Perrysville high school building disinfected with formaldehyde solution in order to satisfy a clamor of patrons who claimed the building was unhealthy. To a certain extent this was true. Owing to a popular demand and upon my recommendation, the trustee had the four audience rooms coated with alabastrine. This proposition, however, did not satisfy a certain element, who petitioned the Secretary of the State Board. The Secretary made them a courteous reply. The whole matter was carefully stated to the Secretary from my standpoint, resulting in leaving to my judgment the proper course to pursue.

January 25.—Authorized to purchase a formaldehyde gas generator for disinfecting purposes. The purchase made gives perfect satisfaction.

February 6.—Scarlet fever developed in a family northwest, which was promptly quarantined. The patient had, however, been sick nine days. The physician in charge, resided in Danville, Ill. Blanks and the laws of Indiana were sent to him. He was admonished to observe the laws of this State. Disinfected premises February 28.

February 14.—Disinfected house in Perrysville.

February 20.—Quarantined a case of smallpox at Quaker. Seven in family. Illinois physician in case. Called the disease "chickenpox," and then proceeded to vaccinate the whole family but one, a young lady, who

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"chanced it." None of those vaccinated "took" but one. Five of the family had the disease in mild form. All adults but one. The lady who "chanced it" had the disease the last and worst. If there was any doubt of the nature of the disease at the beginning, there could be none at the close. The young lady's face was conclusive evidence that the disease was smallpox. This doctor was also furnished a copy of the laws of Indiana and instructed to obey the law if he wished to practice in this State, which he has since done. Quarantine raised March 20 and premises disinfected.

Several cases of scarlet fever have been reported from Dana. Two during the month of March. This disease has appeared in the county at points widely separated. No deaths. Highland Township reported no deaths for February. Newport also sent in a "no death" card.

April 4.—A written notice was given to abate a hogpen nuisance between Eugene and Cayuga, on complaint of physician and neighbors.

April 24.—By request of Health Officer of Cayuga my presence was desired at a family one and one-half miles north of Cayuga. The family of eight were in various stages of an eruption, with fever, the nature of which he had not determined, although the first case, "the hired man," had been sick twenty-one days, and was then plowing in a field. After a cursory examination of this first case it was called smallpox. This diagnosis was promptly confirmed by the County Health Officer for Fountain County the next day, he being in the locality, and the three of us meeting by appointment. These eight cases were mild in form. Five of them were adults. Three were children, aged three, eleven and thirteen years. None of the eight had ever been vaccinated except the father, some forty-five years before. He was simply ailing for a few days and the last to take disease. I have since learned he had two or three pustules. While a large number in the neighborhood had been exposed, the disease failed to spread. My observation in this mild form of smallpox is that only by prolonged exposure do people contract the disease. Quarantine raised May 12 and clothing, etc., disinfected.

May 8 and 9 your Secretary attended the Tenth Annual Convention of Health Officers at Indianapolis. There was a large attendance. Much time was given to discussing the smallpox epidemic over the State. Much difference of opinion exists among physicians as to its nature, a majority calling it chickenpox. Probably one-third of the physicians of the State never saw a case of smallpox, although some of them have been in practice half a century. By request of the Secretary of State Board, two papers were handed in, one on the subject of smallpox, the other upon the sanitary condition of schoolhouses of the county. With others, we gave verbal expression before the convention upon the subject of smallpox.

Early in the morning of May 10 attention was called to a young man in the employ of some bridge contractors. This patient had been taken with a chill, followed by fever the same night. Inquiry elicited the fact that he had been exposed to smallpox. In less than twelve hours after chill a pesthouse was built under the bluff east of town and the patient moved into it to await developments. On the third day an eruption began to appear. It was smallpox. He was kept in seclusion with guard until all danger was past, bathed in disinfectants, new clothing given, and discharged. Pesthouse burned.

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June 13.—Inspected a hog yard. Spite work. No action taken. None needed.

June 26.—Upon receiving written complaint from two reputable citizens of Hillsdale that a certain house was unsanitary, the same was inspected the next day. The condition of things justified the complaint, a reasonable time was given to clean up. Not, however, until I threatened to file an affidavit with the prosecuting attorney was the work done.

July 2, 10 p. m.—A telephone from Summit Grove stated that a cow had just died from a bite of a supposed mad dog, and that two other animals had died from same cause. My presence was desired. July 3 a visit was made to the town. After hearing all the evidence, there was nothing to show that the cow had ever been bitten. Two pigs had also died. The dog had been acting strangely for some time and had been suffering from an abscess in the head, and killed about three weeks before. The owner of the cow, a woman, had in drenching the animal, got saliva into an abrasion of skin on the hand the same night the cow died. She had already gone to a distant point to apply a "mad-stone." Subsequently it was learned that the stone "stuck" for several hours, which to "mad-stone" believers was conclusive evidence the cow died of rabies. Opinions are divided as to the virtues of mad-stones. Certain it is that the laity regard a mad-stone as a "cure all" for mad-dog bites.

Several complaints as to stench from the Dana creamery. That point was visited. The premises and building thoroughly inspected. The smell complained of, from slop thrown into a ditch, did not seem to warrant the extremes complained of. No action taken. July 16 a second visit was made to the Dana creamery. Several complaints having been received of the intolerable stench. As in the case of the former visit, it had rained heavily a few hours before visit, which had the effect of absorbing and dissipating the smell. This time I talked with a number of the leading citizens, who uniformly declared I had come in the wrong time to get an idea of the situation, but they were willing to be witnesses that the creamery was a nuisance. A five days' written notice was served upon the proprietor to abate and disinfect. In the meantime the running of a waste pipe into the ditch sewer pipe had been made. An injunction was served to remove the waste pipe on account of choking of sewer. A lawsuit seemed inevitable. Some time during September the whole establishment burned. No insurance. While at Dana, two parties complained of stockyards east of town, but inside of corporate limits. A survey of them was sufficient to show that a Health Officer was needed. After a consultation with the County Health Board it was decided that, as Dana was an incorporated town, and had a Board of Health and a local Health Officer, the city ought first to exhaust its resources. A written reply was forwarded to the parties mentioned embodying the above. Nothing further has been heard of the matter.

The Dana creamery having been destroyed by fire, it was hoped that would end the trouble. Like Banquo's ghost, "it won't down." October 1 came complaint that the proprietor was digging up cheese and putting the same into barrels. The stench was beyond endurance, etc. Again a five days' written notice was served upon owner to abate. During the fall the proprietors of this creamery were indicted for maintaining a nuisance. The case was called and nollied January 3, 1901.

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Having upon two different occasions been telephoned concerning an eruption in Opudee and Stumptown schools, a visit was made to those places October 23. At Opudee were twelve cases of impetigo contagiosa. The danger of further spread not likely; no action taken. There was one case of impetigo at Stumptown. There had been an epidemic of sore eyes in the school, but were all well over it.

November 30.—The county jail and poor farm buildings were thoroughly inspected. The jail had no inmates. Sanitary condition first-class. Poor farm had thirty-one indigents, two of whom were nursing babies—two boys. Inmates about equally divided as to sex. The building a model of cleanliness. The courthouse privy is a "give away" on the janitor.

The following annual reports of the various Health Officers are given entire:

NEWPORT.

Sanitary report of town of Newport, Vermillion County, Ind.:

Health has been uniformly good, save one epidemic of measles, mostly in February and March, 1900. Some forty cases reported. No deaths. Epidemic mild. Sanitary conditions good. Public buildings all in good sanitary condition. Three cases of diphtheria in the corporation limits within the year. No deaths from same. Present condition of public health first-class.

M. L. HALL.

CLINTON.

Clinton is situated on the Wabash River on what is called the second bottoms, with high hills to the back of it. The ground slopes in every direction, which makes drainage of city perfect. The streets and alleys are reasonably clean. The sanitary condition of the town is better than ever before.

A. A. WASHBURN.

CAYUGA.

Water supply of Cayuga during the three months of September, October and November contained intestinal bacteria. We had nine cases of typhoid fever reported, but in reality I think we had three times that number. Three deaths. What was cause I can't say, unless from a very heavy rain in latter part of June, filling every privy and well.

Scarlet fever, 10 cases reported, no deaths. Births, 14. Deaths, 10 during year; causes, pneumonia 3, typhoid 3, railroad train 1, rheumatism of heart 1, catarrhal dysentery 1, cerebral apoplexy 1. Total, 10.

We have had no special epidemics, only the typhoid fever, consequently general sanitary condition of town very good.

W. P. DARROCH.

DANA.

On account of sickness the Dana Health Officer has failed to report, although I have waited several days beyond the last minute.

E. C. LOOMIS,
Health Officer.

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VIGO COUNTY.

I have the honor to hand you herewith my annual report for the year just past.

The general health of the county for the year has not been as good as the average. An epidemic of smallpox and measles in the early months of the year largely increased the amount of sickness. Following this we had in the summer months several phases of malarial poison; later on typhoid fever appeared and prevailed over a larger area of territory than common. In the early winter months an epidemic of la grippe appeared and still prevails. All of these have materially increased our death rate. We have reason to be thankful, however, for abundant crops and a bountiful food supply. The general sanitary condition of the county is fairly good and improving. Surface drainage and the disposal of all kinds of garbage is especially notable as an improvement in domestic and social economy. The sanitary condition of all the public buildings, including hospitals and home, is good, except the jail, which, I understand, is in hopeful shape for much needed repairs. Personal inspection of the schoolhouses throughout the county has been impossible, and I rely for information in regard to them from teachers, patrons, Trustees, etc. Their condition is fully up to the average. However, in some townships it is complained that the houses and surroundings have been neglected. There has been several new schoolhouses erected during the year with modern improvements, which is creditable to the judgment and enterprise of the school officers concerned in them.

The current expenses of this office for year are as follows: The County Council appropriated $31 for the running expenses. Of this amount there has been expended for postage, express matter, telegraph, etc., $23.17, leaving a balance of $7.83 to be turned into the treasury. The council also appropriated a smallpox fund of $1,000. Of this fund there was expended for printing, livery and traveling expenses, groceries, medical supplies and medical attendance, nursing, etc., $685.28. All of these amounts are filed in the Auditor's office and open to inspection. The total expense exclusive of the salary of the Secretary amounts to $707.45. Total amount to be turned into the treasury, $323.55. There has been returned to this office 708 marriage certificates—691 white, 17 colored.

There has been reported 41 cases of diphtheria, 4 cases of croup, 56 cases of scarlet fever, 135 cases of measles, 118 cases of smallpox, 14 cases of typhoid fever. Of births there has been returned a total of 955. Of these there were 488 males, 467 females; 34 still born and 35 illegitimate. The death returns were: January, 53; February, 72; March, 77; April, 81; May, 69; June, 50; July, 83; August, 78; September, 59; October, 77; November, 68; December, 66. Total, 833.

SCHOOLHOUSES.

School buildings in the city of Terre Haute and county of Vigo are generally well located and comfortably seated. The city schools are heated by hot air or steam; the country schoolhouses are heated by stoves.

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Light and ventilation are both defective, and generally admitted at points remote from the heat source—hence increased discomfort to those contiguous to those points. Improvement in lighting, heating and ventilation is demanded. Fewer hours of study and medical inspection of schools is suggested. The school system of our State is one of commendable pride, and a prime object should be to get the greatest amount of good to the greatest number of pupils; hence a cramming process that is frequently observed is to be deprecated. It is recognized that economy, comfort, efficiency, and the health of both scholars and teachers demand improvement in the construction of school buildings. To this end it is suggested that the construction of schoolhouses be under the supervision of a board, consisting of the Township Trustee, the County Superintendent of Schools and Secretary of County Health Board. This should be incorporated in the school law and not in the health law. Finally educate Health Boards so that they shall administer health laws. Educate school teachers by courses of instruction in hygiene at teachers' institutes, educate school children by including in their studies the subject of personal hygiene.

SMALLPOX.

The first case of smallpox occurred on January 3, 1900, and was reported by rumor. Investigation developed the following history: Name, Whitehead; family consisted of father, mother and three children; at time of my visit the father and three children all had the contagion, the father the worst of any, but all convalescing; the children were playing about the yard, the father up and scabs coming off; they had moved from Clay City just before Christmas. All developed the disease after their coming here. This family lived north of city limits about one mile. The mother had been vaccinated before marriage and did not have the disease. All the others were unprotected. There was one case that was exposed, and contracted the disease from this family. The next case was a Mr. Ward, who was reported January 17, and was sent to the pesthouse on morning of 19th. This man roomed upstairs in a tenement house. Several cases developed from him. This man had recently come here from south part of State. There was another case reported about this time. A man who worked in a large shop continued his work until he was about over the eruption. After his case was investigated he was shut up and his boarding house promptly quarantined. From this case many persons were exposed to the infection. About this time a case was reported by Dr. J. N. Hurty as coming from Clay City. Dr. Willien and myself visited the young lady at once, found her with all the marks of a recent attack, but clearly well over the disease. No case was developed from her. She had never been successfully vaccinated. From this on cases accumulated fast. Up to this date there have occurred forty-one cases in city and forty-nine in county. Those occurring in the country were mostly in Riley and Pierson townships, in the southeast part of Vigo County. Those townships join the Clay County line, and are contiguous to an infected district. There has occurred no death as yet, and most of the cases have been very mild and needed very little medical attention.

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In the beginning we had the opposition, both professional and laity, common in other sections, to contend with, which in some instances greatly embarrassed our efforts to "head off" the disease. Of course if a sufficient per centage of deaths had occurred, this opposition would not have developed, but a degree of excitement would have obtained that perhaps would have been much harder to control.

At the beginning the contagion here clearly had its origin from infected persons from Clay County, where it had been prevailing for some time previously. A very interesting feature of the present infection is that vaccination has proved, in many instances, a complete protection; there have been comparatively few cases of varioloid in families where the infection has obtained—the unvaccinated would have the disease and the recently vaccinated would invariably escape. The cases of varioloid that have occurred have been in cases where the person was vaccinated many years previously. It may be interesting to give the history of some families bearing directly on this point. One family who lived in the country, consisting of thirteen members, all had the disease except one, who was away from home at time of the infection. Some of them were very bad, none of them had been vaccinated. In another family of nine, one had the contagion; was considered a typical case; all the others were vaccinated and all escaped. Another family of nine—three had the disease and six escaped by vaccination. Another family of eight—four had the disease and four escaped in like manner; a family of five was exposed; one child two years old had the disease; all the others escaped. Some of this family had been vaccinated years before. Another family was exposed; all were vaccinated except an infant ten months old; it developed the disease, and at one time its life was despaired of. Another family of four—one took the disease; the others were all vaccinated after exposure; all escaped, although this was a bad case, was in bed longer and required more attention than any case that has occurred. And so the history continues throughout the entire time up to the present.

Protection by vaccination is so apparent in this contagion that it is a subject of serious thought whether, if the practice was prudently and carefully carried out, it would not, in time, eradicate the contagion. In this connection it is suggested that the vaccination of entire schools and continuing the schools is not the safest plan to pursue. Would it not be better to discontinue the schools for a definite time? Is it not probable that vaccine fever from a dozen or more scholars confined in a schoolroom might develop varioloid in an unprotected person? It occurs to me that this is a question worthy of serious thought. Make vaccination a legal qualification for admittance to the public schools. A good scar is the best certificate that can be presented as evidence of protection from smallpox poison.

There is another feature worth mentioning in connection with the diagnosis of smallpox that has given us so much trouble. That is, in most cases that have been observed, there have occurred some aborted pustules that become horny in appearance. To me this is one of the best evidences of existing variola. I am not aware that this is a point that is particularly noticed by writers on the subject of smallpox poison. Neither am I aware that aborted pustules of this appearance occur in any other

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pustular disease. So deeply am I impressed with this observation that, in my present state of information on the subject, should I meet with these horny, aborted pustules, I would unhesitatingly conclude that the eruption was variola, even in the absence of or contrary to other existing symptoms.

The anti-vaccine fiend whose voice was unceasingly heard in the land, has long since stopped his discordant croaking in this part of the moral heritage, and vaccination has scored another victory in favor of accepted common prudence and common sense.

As a disinfectant, formaldehyde has been commonly used. After burning up all worthless carpets and clothing, brushing down the walls, spreading out the contents of a room, opening all drawers and closets, stopping all openings, a 40 per cent. solution of formaldehyde was mixed with three times its bulk of water and sprinkled well over all; the room closed for twelve to eighteen hours, after which windows and doors were opened and thoroughly aired.

This brief report is respectfully submitted, hoping that it will be accepted as an earnest effort of our endeavors to do everything possible to keep in subjection the spread of this loathsome curse, and finally drive it from among us.

JOHN M. TALBOTT,
Health Officer.

WARRICK COUNTY.

Warrick County being one of the extreme southern counties, is bounded on the south by the Ohio River, hence has a navigable front on the south, and the numerous small streams of the county drain into the river, giving the county ample drainage. The county has some wet lands that are being drained by numerous ditches constructed under the ditch law of the State.

On the 26th day of November, 1900, I visited the county poorhouse. I visited the various rooms of the house with Mr. Samuel Gentry, who has charge of the building. The building is an old shack that will soon be removed and replaced by a substantial brick. I found the building in as good condition as could be expected, considering its dilapidated condition. It is situated on a farm of eighty acres of high rolling land. Mr. Gentry informed me he had sixteen inmates, eleven males and five females. No epidemic during the year and no deaths in the house.

On December 14 I visited the orphans' home. I found this institution for homeless children in the condition that all visitors find it at all times. Warrick County is proud of her well-managed orphans' home. The site of the building is a hill in the west part of Boonville that drains every way from the house. The entire building is a model of cleanliness.

The children who are old enough attend the public school of Boonville.

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The matron, Emma Wilder, being absent placing a child in the northern part of the State, her assistant told me they had sixteen children in the home—twelve boys and four girls. One case of supposed tuberculosis. No epidemic in the building during the year, and no death.

I made an official visit to the county jail on December 18. I found the jail in rather an untidy condition owing to the fact that a part of the wall had been battered down on the previous night by a mob. Usually the jail is in good condition. There was one prisoner in the corridor and one had been taken out and hung up in the courthouse yard on the night of December 17. No epidemic of any kind in jail during the year. No deaths.

Mr. James Wilson, county superintendent, informed me the schoolhouses of the county are in good condition, considering the past condition. Each year new structures are put up and many repairs on existing buildings. Mr. Wilson says he has materially improved the ventilation of the rooms already built, and has up-to-date ventilation on the new buildings. Also cross light has received much attention.

The local Health Officers of the incorporated towns will write up their schools.

T. WRIGHT,
Health Officer.

WELLS COUNTY.

In all the counties surrounding there has been smallpox, but up to this time we have escaped an epidemic. The health in the county has been very good, a few cases of diphtheria and scarlet fever now and then developing. In the month of October, 1900, there was quite an epidemic (56 cases) of diphtheria at Ossian, Ind., due, no doubt, to the lack of a strict quarantine. But after a systematic quarantine was inaugurated, in four weeks there was a reduction to nine cases, demonstrating the necessity of the strict observance of all quarantine rules.

This year I was forced to cause the arrest of one undertaker, who was found guilty, and one doctor, also found guilty and fined.

We, have endeavored to keep up a campaign of education along health lines by having articles in the papers from time to time. There was a health convention at Poneto, Ind., this year. Dr. J. N. Hurty delivered an address; also papers by Drs. McCaskey and Bulson, of Fort Wayne. The laity attended.

We are at this time just starting a system which shows signs of great good by sending out postal cards each month to all the physicians of the county, asking them the number of cases they have of diseases that can be prevented. After we receive these cards, we intend to send pamphlets on each disease, giving suggestions how to prevent it from spreading. These pamphlets can be distributed by the doctor in his rounds.

The annual reports from the different Health Officers of the county show no great epidemics at any time. We have five Health Officers and six

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deputies in this county. Arrangements have been made now so any one of these officers can communicate with this office by telephone at any time. I have had a deputy for several weeks, Mr. Cyrene Warner, who has proved to be a very good officer. I wish to take advantage of this opportunity to speak of the wonderful work done by my deputies, who receive no compensation for their services, only when the county sees fit to pay them. I wish also to publicly thank Hon. Hugh Dougherty, of this city, for his tireless assistance during my fight with the antivaccinationists; also for his public letters to the press in behalf of the Board of Health. It is my humble prayer that we will have many more like him, who holds conviction above public opinion.

In the city of Bluffton the sanitary condition is very good, but the city is sadly in need of some way of disposing of its garbage. I would recommend the building of a crematory, and the doing away with the semi-barbaric custom of hauling the garbage to the river and polluting the stream. I would also recommend the passing of an ordinance establishing a City Board of Health, giving the council power to appoint four citizens to act as a Board, authorizing them to appoint a Secretary who shall be the Health Officer of the city. The Board to be composed of two Democrats and two Republicans.

I find by visiting the county infirmary, the courthouse and the orphans' home, that they are kept in a very good sanitary condition. The jail is a very fine building, and by a little care could be kept in the best of condition. I wish at this time to condemn the custom now followed of placing the insane inmates in the same department of the prison with the other prisoners. There is no reason for this, as there is a department built on purpose for the insane, and their not being placed there is possibly due to neglect.

A case of smallpox developed at Markle, Ind., just across the line. In order to protect the inhabitants of this county I ordered that a guard be placed on the county line. The editor of a yellow newspaper in Markle, through ignorance, objects to my method and appears in his journal with a diagnosis of the disease in opposition to the physicians, claiming the case is not smallpox, and that the insult I have committed against Markle is unpardonable.

I offer this as a sample of the kind of so-called editors that are permitted to express opinions through these papers. The Evening News, of Bluffton, is not of this stripe, for at all times this paper has advocated the strict observance of all rules that govern the spread of contagious diseases. With the assistance of such papers it is a pleasure to be even a Health Officer.

BROSE S. HORNE,
Health Officer.

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WHITLEY COUNTY.

Columbia City, Ind., November 5, 1900.

Whitley County Board of Health met in commissioners' room, with all members present. Dr. Williams, of the City Board, and Dr. Barnhill, of South Whitley Board, were also present.

Dr. Schuman, Secretary of the County Board, submitted the following report:

The health of the county at the present time is very good. There are no epidemics of any kind at present. Typhoid fever and whooping cough have occurred in isolated cases only during the last quarter. With these exceptions we have had no contagious diseases of any kind, a fact for which we should feel thankful, for we have had no extra expense on account of these diseases, while many other counties in the State have had much expense on their account.

The sanitary condition of the county is improving from year to year. Our people are rapidly awakening to the fact that good sanitary surroundings are essential to good health. I am, as far as possible, impressing upon the minds of the teachers the necessity of keeping the school grounds and houses in the county in good sanitary condition. I found one school in Washington Township in which the children were washing and wiping from a common basin and towel and by that means had infected some five or six families with what is known as "impetigo contagiosa." I at once ordered the teacher to dispense with both basin and towel, sent home all children already infected, and by that means got rid of the trouble. Now all of the children are back in school.

Dr. Williams and myself have visited the city schools and inspected all of the primary grades and sent home several children whom we found to be suffering from whooping-cough. We also advised the teachers to be on the alert for defective sight and hearing, and that all parents of children suffering from such affections should be so informed, and that it became the duty of such parents to see what could be done to correct the difficulty.

I have recently inspected the courthouse, jail and poor asylum and found them all in good sanitary condition. The new county hospital is well built with reference to heating, lighting and sanitary surroundings. It is a credit to the county and fills the want of a long felt necessity.

I am well pleased with the work done in collecting death reports for the fiscal year ending September 30, 1900, for I am quite sure that we have a complete report of all the deaths which have occurred in the county since the new health law went into effect. I have the following statistical report to make for the quarter ending September 30, 1900:

Births, 56; marriages, 45. Contagious diseases—Typhoid fever, 7; whooping-cough, 9, and erysipelas, 1.

A copy of this report is filed in the Auditor's office as a matter of county record.

O. V. SCHUMAN,
Health Officer.

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REPORTS OF COUNTY HEALTH OFFICERS ON SCHOOLHOUSES.

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REPORTS OF COUNTY HEALTH OFFICERS ON SCHOOLHOUSES.

ADAMS COUNTY.

I wish to submit the following report of the sanitary condition of the schoolhouses in Adams County:

There are in the county about 115 schoolhouses; of that number all but eight are in a very satisfactory sanitary condition as to light, ventilation and heating. About 85 per cent. of the schoolhouses are provided with good drainage.

About 75 per cent. of the schoolhouses of this county are provided with good wells, which are in good condition. Quite a number of the schoolhouses have water tanks in the building, to which are attached small drinking cups. Slates have been discarded in nearly all of the schools of the county. Sterilizers are also being used in a great number of schools.

In the cities and towns nearly all the schoolhouses are heated with furnaces. In the country districts, where there is only one room in the schoolhouse, stoves are used.

The outhouses are kept in good condition, a decided change from last year.

The schoolhouses in our county are nearly all built of brick, especial attention being given to the selection of site for building; also special care taken to supply sufficient light, and in all cases where possible to have the rays of light to the left of the student. Nearly all the schoolhouses are supplied with adjustable desks and seats.

H. F. COSTELLO,
Health Officer.

BENTON COUNTY.

There are seventy-five frame country schoolhouses and one brick schoolhouse in Benton County. There are eleven houses that are not in use at the present time. There are six brick houses in the incorporated towns in the county. There are two brick and three frame houses in the five unincorporated towns.

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The country schoolhouses are all heated by soft coal stoves, and the means of ventilation consists of the old way of raising the windows. As a rule the light is admitted from both sides of the room, but in a few instances it is admitted only from the right side of the pupils. The water supply is good. In all cases the water comes from deep driven wells on the school lot or is taken from a close neighbor, from the same kind of a well. This insures pure water for pupils and teachers. The school yards are well drained and kept in good condition. In fact, the Trustees take pride in keeping the country schoolhouses in good condition. The eleven houses not in use are in districts where the number of school children is so small that it is cheaper to transfer to other districts than to maintain two separate schools.

The schoolhouses in the incorporated towns are all brick, substantially built. The Fowler schoolhouse is a building of ten rooms, heated by hot air, with dry closets. The whole system is a failure and must soon be condemned and some other plan adopted.

The other five houses are all heated by hot air furnaces and have so far given general satisfaction.

The village of Raub has a two-room brick, heated by hard coal stoves. Swanington, Talbot and Templeton each have two-room frame buildings heated by soft coal stoves. The little town of Wadena is building a four-room brick house, to be heated by steam, properly ventilated. In fact, when completed, will be a model school building.

We have had but two cases of smallpox in the county. They occurred in the extreme north line of the county near Goodland, which is in Newton County. The disease was brought from near Fort Wayne. A strict quarantine was maintained and only two cases resulted from the exposure. Neither person had been vaccinated.

The general health of the county has been good and no epidemics occurred, except scarlet fever, which occurred in a mild form in various parts of the county.

J. S. MAVITY,
Health Officer.

BLACKFORD COUNTY.

Blackford County has fifty-four schoolhouses. Forty-seven are country schoolhouses, constructed of brick and stone, one-story buildings, located on high ground, well drained, heated by stoves, lighted and ventilated per windows and doors, three or four windows on each side of the room. Two privies for each building, located four to five rods from schoolhouse.

Hartford City has five and Montpelier has two school buildings, two-stories, constructed of brick and stone, heated by furnace, lighted and ventilated per windows and doors, washout closets connected to city waterworks and sewers. Seats and desks the common or ordinary kind, not adjustable to children of different sizes, as should be.

W. N. CRONIN,
Health Officer.

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BOONE COUNTY.

The schoolhouses throughout the county of Boone are in fair shape. Most of buildings are of the old-fashion, being built some years, and in good state of preservation, they were built to conform to the best-known principles at that time in regard to heat, light and ventilation. I have condemned one, which will be rebuilt up to the late rules of sanitation. The houses in Lebanon are in good condition. The house at Whitestown is new, and a good one. The house at Jamestown is old, but substantial. Several years ago the building was turned over to the township by the corporation of Jamestown. The Trustee of Jackson Township has worked the building over and made some improvements, which makes it an average school building of the old type. The school buildings at Thorntown, two in number, are first-class buildings, with most of the modern improvements. They are well ventilated, with good light, and well fixed for heating. We have every schoolhouse in the county well scrubbed and whitewashed just before the beginning of school in the fall, and they are inspected by the Trustees and reports made to this office.

We have driven wells at all but a few schoolhouses in the county. I have urged the importance of the above, and believe by the beginning of school this fall every schoolhouse will have a driven well and good water.

We have 129 schoolhouses in the county outside of the incorporated towns, with 5,992 pupils—3,199 males and 2,484 females—colored, 8 males, 1 female. Lebanon has 1,226 pupils—600 males, 606 females—colored, 9 males, 11 females. Thorntown has 451 pupils—248 males, 199 females—colored, 1 male, 3 females. Zionsville has 196 pupils—89 males, 104 females—colored, 1 male, 2 females.

All the schools in the county reported in a flourishing condition.

A. P. FITCH,
Health Officer.

CLARK COUNTY.

I herewith submit my report for Clark County. On the 30th of January last I made my annual report to the State Board of Health, in which I gave quite a lengthy description of the condition of our schoolhouses, with the exception of Charlestown and Sellersburg, as the Health Officers in those places failed to report to me. The following is from the Officer at Charlestown:

"High school building, two stories, brick, heated by furnace in basement. The rooms are well lighted, with windows on two sides of every room. The rooms are ventilated by windows, and shafts running from basement to roof. The water closets are in basement, contents carried by sewers to the creek. These closets are flushed every day; no foul odor in closets. The water tanks are in the garret of building. The wooden water buckets and drinking tins were slimy and were kept in schoolrooms.

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The slop buckets were in a filthy condition and nearly full of slop, that looked as if it had been standing for several days. These were wooden buckets. One colored school building, one story high, two rooms, built of wood, heated by stoves, poorly lighted, ventilation very poor. The water buckets and drinking tins were clean; water kept in schoolrooms. Two privies built of wood; no vaults. The closet for girls was clean and neat, but that for the boys was in a very filthy condition, and odor very offensive. The school lot is dry and well drained."

The following report from Sellersburg:

"I find our schoolhouse much too small to accommodate the number of pupils who attend. Poorly ventilated, poorly heated, no walks about the house, yard poorly drained, and no drinking water on premises. I hope that such action may be taken as to compel our school board to renovate our schoolhouse and yard."

An effort will be made before the next term of school at those places to correct the condition of things.

Ohio Falls and Clarksville report: "Two two-story brick schoolhouses, both in excellent sanitary condition; town has no contagious or infectious diseases. We are unusually healthy for this time of year."

Report from the officer at Port Fulton: "I have made an inspection of the school buildings of Port Fulton and found them in good condition, buildings clean, grounds and vaults in good condition."

The Board of Health of Jeffersonville has not reported.

The schoolhouses throughout the county as reported to me, and so far as I have been able to make personal inspection, are well kept, and considerable attention given to the sanitary conditions. These are all ventilated by windows and heated by stoves. Most of them well located, and stand upon well shaded lots.

In closing this report on our schools I would suggest that if politics could be eliminated, especially from the Trustees, and competent persons carefully selected, it would work a much-needed reformation for good.

Smallpox.—This disease invaded our city again on the 13th of January of this year and ran along until February 26, since which date we have not had a case. There were in all ten cases, all colored but one; some three cases severe, the rest rather mild; all but one was treated in the pesthouse. None of the ten cases had been vaccinated, and those who had been vaccinated and were exposed to the disease escaped. We are inclined to the opinion that the sources of the contagion of all the colored cases were from Louisville. That of the white man was contracted at Brownstown, where he had been on a visit. All the cases recovered. I find it difficult to educate all the people up to the importance of vaccination. Located as we are here on the border, we congratulate ourselves on having escaped a general epidemic.

W. H. SHEETS,
Health Officer.

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CRAWFORD COUNTY.

The schoolhouses in this county are poorly constructed frame buildings. Will average from 40 to 50 square feet and floor space of 2,000 square feet, and am sorry to inform you that an average of 40 or 50 children sit in this room for eight hours, with temperature ranging anywhere from 40 to 100 degrees Fahr. Simply an old stove, and in most cases three windows on each side of the house. So while some are freezing, some are exhausted by heat. These are the schools in country. Our city schools are a shade better. In all cases they drink water from a bucket and tin cup--washed at beginning of session of school. I have appealed to County Superintendent, Trustees and School Directors to have this matter ameliorated. Our county is so poor that it could not all be done at once, but I will promise it shall be bettered before school opens this fall.

We have had no smallpox in the county in the last five years.

C. D. LUCKETT,
Health Officer.

DEARBORN COUNTY.

Dearborn County has 103 schools, all of which are in a fair condition. Some of the schools in the country districts are old, and these are small, low ceilings and poorly ventilated, but it is hoped these will soon be replaced with new ones, supplied with modern conveniences, and arranged with a view of conserving our children's health as well as storing their minds with useful knowledge. The water supply of some of the schools is not good, especially those that use cistern water. The cisterns are not cleaned every fall and consequently the water becomes foul and unfit for use. The schools are all heated with stoves except those in Lawrenceburg and Aurora. These are heated by furnace.

A. T. FAGALY,
Health Officer.

DECATUR COUNTY.

There is one city, three incorporated towns and nine townships in Decatur County at present, making thirteen school corporations.

The city of Greensburg and the towns of Westport, Millhousen and Newpoint have School Trustees, and each township has a Trustee.

There are two parochial schools in the county, under the direction of the Catholic Church. There are no other sectarian schools in the county.

The towns of Milford, Westport, Kingston, Millhousen, Clarksburg, Newpoint, Adams, Sandusky, Waynesburg, Alert, Sardinia and Letts have two or more departments.

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One school corporation, that of Milford, was returned to Clay Township, and there were two school districts abandoned during the year.

During my incumbency I have visited two or more of the schoolhouses in each of the townships in the county. In all that I have seen the buildings are fairly well located, from a sanitary point of view, considering at the same time the convenience and needs of the pupils and patrons. The buildings are nearly all of brick, with hall or entrance way, which is utilized as a cloakroom, etc. The privies are as far from the wells as possible and at points that are as little offensive as the grounds will admit. There is one privy for each sex, generally with blinds, and plank or gravel walks or stepping stones leading to them. Some of the privies were not properly disinfected during the last school year, and in a few instances there was destruction of the buildings by parties unknown. This in the future will be corrected if possible to do so. The windows are large, affording plenty of light when properly admitted. The ventilation is by windows and transoms. The windows can be raised from the bottom and let down from the top. Most of the windows have curtains, some of them dilapidated, mostly of a green color, a few of them can be raised from the bottom and let down from the top, but the great majority come down from the top only. The district school buildings, with a few exceptions, are heated with wood or coal stoves. So far as I have seen there are no radiators used. Except by wood or coal stoves, there is no other available way of heating the district school buildings at present. Neither is there any other way of ventilation than by the windows and transoms, unless the buildings were remodeled and wall ventilation or other modern modes were substituted. I don't think this would be done at this time, even if recommended and the cost only nominal. We have an epidemic of economy—confined to a few—of the penny-wise and pound-foolish variety, to save the "much oppressed taxpayers." This is shown in the acts of the Decatur County Council in refusing to make the necessary appropriation for the publication of the Food and Health Rules of the State Board of Health.

In some of the townships the wells are all driven; all that have been constructed recently are driven; the others are well protected from surface water by embankments, and in instances by underdrainage. Some have wind mills, others force pumps, but the majority, perhaps, have chain pumps. In one or more of the deep wells the labor to get the water by the force pump is so great that the pupils prefer to carry the water from the neighboring farm houses.

All the Trustees, at least all that I have met, tell me they enforce the order of August, 1897, relating to the scrubbing of the floors, desks, etc., and disinfecting the same.

I met the Township Trustees twice during the year—once in relation to general vaccination of children in the townships, and later to learn if there were any complaints to offer that could probably be remedied through the action of the local Health Board. All reported their schools in good condition, and absentees few in number on account of sickness. No assistance was asked for.

There have been but three instances when the schools were closed, even for a short period, on account of infectious diseases during the year.

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The condition of the city schools will be reported by Dr. E. T. Riley, the City Health Officer, and will accompany this report.

The school buildings in the county are in good condition.

J. H. ALEXANDER,
Health Officer.

GREENSBURG.

I submit the following sanitary report of the school buildings of the city of Greensburg:

The two buildings being furnished with the latest method of lighting, heating and ventilation are second to none in that respect. The new closets, which are located in the buildings, are not yet completed, but will be before the beginning of the next school term. The floors, as a result of not being oiled with a "no dust oil," are a little unpleasant to both teachers and pupils, but this is remedied as much as possible by the occasional scrubbing and sweeping of the floors.

The water supply is furnished from hydrants within the building, and the tin cups are a very small size, so they are always flushed when filled.

E. T. RILEY,
Health Officer.

FLOYD COUNTY.

Can say that 25 per cent. of schoolhouses in county outside of New Albany need replacing with new buildings. Several will be built this year, so I am informed by Township Trustees. Stoves are used for heating and windows for ventilation, with two exceptions.

In the city of New Albany three of the ten buildings should be removed. One building only is properly heated and ventilated. We have had no smallpox since last July—18 cases in all--and no spread of the disease from any single point, and no extension of the disease in any family, as vaccination and revaccination was resorted to as soon as a case of smallpox was discovered. I think for our population we had the lowest number of cases of any place in the State, all because of a very thorough canvass and vaccination as soon as the first case was reported to the Board of Health.

Respectfully,

R. W. HARRIS.
Health Officer.

FOUNTAIN COUNTY.

There are 103 schoolhouses in Fountain County. There are 163 teachers occupying these buildings in the work of teaching. These buildings are in the country districts, and 95 per cent. are frame.

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The water supply is from wells on or near the school property. Pumps are used, usually much water spilled around these pumps, and probably one-fourth of these pumps and wells allow the water to run back into wells. The buildings are all heated with bituminous coal in stoves in the center of the room. The ventilation is from cracks in doors and windows, and sometimes the lower sash is raised. Plenty of light is supplied, but occasionally the light from the window comes from the wrong direction. There is one large school building about completed that has one large window directly in front of the desks, which evidently will produce bad results. The schoolhouses are supplied with privies, one for each sex, in the corners of school yards. These little buildings are standing over an excavation in the ground, which receives the faeces. These vaults are not cleaned out; neither are disinfectants used.

The city of Covington has two large brick buildings, occupying separate grounds, and accommodating 600 pupils.

Attica has one large brick building sufficient for 600 pupils.

Veedersburg has one brick building for 300 pupils. All these buildings are in good sanitary condition, and supplied with good water. The privies in Attica schools are supplied with flush system and good sewerage.

GEORGE ROWLAND,
Health Officer.

GIBSON COUNTY.

I have taken great care to look into sanitary condition of schoolhouses of this (Gibson) county, and find them in most cases in good condition. A great number of our houses are almost new. Old ones have been displaced by new, owing to increase in population. Closets at country schools are away at safe distance from wells. Blackboards are well arranged, and ventilation good. Slates have been discarded in nearly all schools. In town and city schools closets are of dry system. Excreta is burned by use of petroleum. Our high school building was recently burned, and a new modern building is being erected and will be ready for full opening of schools.

A. R. BURTON,
Health Officer.

HOWARD COUNTY.

I have lately condemned two school buildings of Monroe Township, one in Honey Creek Township, and have ordered new buildings in their place. The sanitary condition of the balance of the schoolhouses of the county is good. The source of water supply is from driven wells.

No smallpox in the county, but there has been lately exposures to smallpox and three families are now quarantined.

R. H. SMITH,
Health Officer.

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JAY COUNTY.

In Jay County we have 112 schoolhouses—brick and frame buildings. They are generally centrally located in the district on rolling ground. In a few instances the site is not well selected. Buildings have cross lights—that is, windows on two opposite sides. They are provided with curtains that lower from tops of windows. Stoves are used for heating purposes and wood or natural gas for fuel. Some of the frame buildings are too high above the ground, are not underpinned, and, consequently, the feet of the pupils suffer with cold, and coughs and influenza result. Ventilation of most of the buildings does not strictly conform to hygienic laws, for the only means of receiving air and permitting its escape are the cracks in windows and doors and the chimney.

The majority of school buildings are supplied with water from driven wells on school lot. Some of the well pits are not drained as they should be.

The country schools are provided with privies on back part of school lot, on opposite sides, for boys and girls. These privies might be kept in a better sanitary condition. In one instance the school lot descends from privies toward school building and well; yet I have not heard of any outbreak of disease in this district that might be attributed to this cause. City schools are provided with privies on opposite corners of school lot, for boys and girls, and are kept in better sanitary condition. So far as I know, it has not been necessary, during the past year, to close any of the schools because of an epidemic.

In reference to the future building of schoolhouses I renew my suggestion of last year: "Have three to five persons appointed, by legislative enactment, who are architects and well informed in sanitation and hygiene, to draft plans and specifications for the building of all schoolhouses in the State, said plans and specifications to cover the whole ground necessary to preserve the health of the pupils; site, number of pupils necessary to accommodate, light, heat, ventilation, water supply and privies, all to be specifically mentioned and hygienically provided for."

JOHN G. ROSS,
Health Officer.

LAWRENCE COUNTY.

In regard to the condition of schools and schoolhouses, will say that we have 115 schoolhouses, all in a fair condition. I speak thus because, first, the School Sanitarian and State Health Board are in advance of the country schools, Superintendents and School Trustees; second, the inventors of school furniture have not yet displaced the old with his inventions of improved desks.

In regard to the first, I think School Superintendents and Trustees are not properly informed about what the State Board of Health requires by

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its rules in building schoolhouses. As to the second, I find most of the school desks are of the immovable pattern. The adjustable desk has not yet got its proper place—that of being in every schoolroom and properly adjusted for age and size of pupils.

I find that Township Trustees do not submit the plans and location of new buildings to Board of Health before erecting same, but locate where some one will donate ground, or where it is more centrally located in the school district, without considering the condition of the soil, water or drainage, etc. Notwithstanding all this, our schools are all moving along well, all proceeding without being closed, except in very few instances by a few cases of contagious diseases.

The Township Trustees have complied with order of the Board of Health in disinfecting before each term of school and after other times when a case of contagious disease has been discovered. As Health Officer of the county I will endeavor to make a change, if possible, before the winter term of 1900.

F. S. HUNTER,
Health Officer.

MARTIN COUNTY.

There has been a special effort made in this county by the Health Officer and County Superintendent this year to greatly improve the condition of all schoolhouses, so far as sanitary conditions are concerned. An order was given last fall before school term begun for each Trustee to instruct the school directors in their several fields of jurisdiction to scrub and wash woodwork and windows in every schoolhouse, and properly ventilate them one week before commencement of term, and also to clean off the grounds around said houses, and clean privy vaults and use Acme disinfectant and deodorant powder in and under said houses and in water closets, which destroyed all bad odors and placed these buildings in good condition. This plan was adhered to during the entire term, and proper attention was given to ventilation and heating of the buildings. Hence the health of the children throughout the county in its entirety was better than formerly. We believe that the proper step was taken, and that these houses were and are in as good a condition as could be expected in country places, and in our towns where mud abounds in the winter season in superabundance.

E. E. LONG,
Health Officer.

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PERRY COUNTY.

CANNELTON.

Number of buildings, 2; number of rooms to each building, 8 in one. 4 in other; heated by steam in main building, stoves in other; ventilated by windows. Number of white pupils enrolled, 467—male 253, female 214. Number of colored pupils enrolled, 20—male 9, female 11. Number of teachers, 10. Condition of outbuildings good; distance from school building, 94 feet. Area of playground, 32,083 square feet. Source of water supply, driven well in yard. What per cent of teachers have been vaccinated within the last six years? None. What per cent of pupils? Ten per cent. Have any epidemics occurred during the present term? Yes, chickenpox.

Respectfully submitted,

O. P. ROBINSON,

Sup't Cannelton Schools.

TELL CITY.

Number of buildings, 3; number of rooms to each building—south building 4, city hall 6, colored 1; heated by coal stoves; ventilated by windows and doors; no special provision. Number of white pupils enrolled 477—male 245, female 232. Number of colored pupils enrolled, 36—male 17, female 19. Number of teachers, 11. Condition of out buildings, fair; distance from school buildings, south building 50 or 60 feet, city hall 100 feet, colored school, 100 feet. Area of play grounds, south building 300 square yards; city hall, 640 square yards; colored school, 200 square yards. Source of water supply, south building, cistern; city hall, well; colored, well. Length of school term, nine months—180 days. What per cent of teachers have been vaccinated within the last six years? Fifty-three per cent. What per cent of pupils? No means of ascertaining, but in 1895 the great majority were vaccinated. Some have moved in since. Have any epidemics occurred during the present term? Scarlatina, but could not call it epidemic. A number of pupils at different times had what was called scarlatina, though some of our physicians denied its being such.

PROFESSOR NEWMAN.

TROY.

Number of buildings, 1; number of rooms to each building, 4; heated by stoves, ventilated by windows and doors. Number of white pupils enrolled, 123—male 51, female 72. Number of teachers, 4. Condition of outbuildings, fair; distance from school buildings, about 100 feet. Area of playground, about one-fourth of an acre. Source of water supply, well. Length of school term, eight and three-fourths mouths. What per cent. of teachers have been vaccinated within the last six years? none; per cent. of pupils, about 40 per cent. No epidemics occurred during the present term. Our sanitary condition is, in general, very good. You will notice that we need some improvement in our method of ventilating and heating.

Very respectfully,

HARDIN WHITMARSH,

Principal Troy School.

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DISTRICT SCHOOLS OF PERRY COUNTY.

Number of schools under my care, 109; number of teachers, 132—Male 76, female 56; number of white pupils enrolled, about 3,800—Male 2,000. female 1,800; number of colored pupils enrolled, 40—male 25, female 15. Condition of outbuildings, medium to bad. Source of water supply, creeks, branches, cisterns, wells. A great many rural districts have no outbuildings.

LOGAN ESAREY,
County Superintendent.

The above reports are respectfully submitted to show the sanitary condition of the schoolhouses of Perry County.

C. T. HENDERSHOT,
Health Officer.

PIKE COUNTY.

While the sanitary condition of the schools in this county is not first-class, it is fairly good, including the corporations of Petersburg and Winslow. We have about 125 teachers employed. Most of the schoolhouses in this county were built without proper architectural designs, therefore many of the buildings are not properly heated and ventilated. But few if any of our schoolhouses have window space enough to admit sufficient light. By actual measurement I find that some schoolrooms have only one-fourth to one-third as much light as is required according to the rule given by Rohe. There has been only a few cases of contagious diseases reported the past year. With few exceptions our school grounds are sufficiently drained, mostly by natural drainage. The schools are mostly supplied with well water.

T. W. BASINGER,
Health Officer.

PULASKI COUNTY.

I find that the schoolhouses of Pulaski County are, in the main, warm. but little attention is paid to ventilation. Ventilation is secured by means of windows and doors thrown open. Houses are warmed by stoves, most of them being placed in the center of the room, stovepipe passing from one end of the room to the other. As a rule the houses are placed on the highest practicable place that can be secured.

But little attention is paid to privies. There are but few vaults, as they are used in the winter and dry out in summer, which is thought to be good enough. The boys' privies are much worse than the girls'. We have but few wells. Water is carried from nearby farm residences. Schools are supplied with water buckets and tin cups. Houses are fairly well seated.

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This is, in the main, the sanitary condition of the schoolhouses in this county. We have a few exceptions. Winamac and Star City are on the modern idea.

J. J. THOMAS,
Health Officer.

SHELBY COUNTY.

During the last four or five years deep bored wells have been placed in almost all the schools in the county. These wells are bored so deep that very little or no surface water is obtained.

In point of ventilation, of course the older schools have nothing but the windows for the purpose, and this is very unsatisfactory. In Hanover Township part of the schools have modern ventilation. A large proportion of the school buildings throughout the county have oiled floors for the purpose of preventing dust and particles of dried mucous from floating in the air. I think the plan a wise one.

J. B. STEWART,
Health Officer.

TIPTON COUNTY.

There are 83 district schools in Tipton County. Of this number 23 are in a good general condition, 10 in poor condition, and 6 bad. The remainder are in fair condition. Twenty-two are either without window blinds or with blinds in unsatisfactory condition. Ventilation in the main is afforded by the windows alone. In quite a number the walls are black and plastering defective, and woodwork needs varnish or paint in some more, and better blackboards are needed. Where possible the Trustees are abandoning dug wells and putting down driven ones, but in a few cases driven wells are impracticable, and in other places the water is carried from neighboring farm houses. The custom of using individual drinking cups is largely in the hands of the teachers, and is not generally adopted. The use of slates is largely abandoned. The condition of outhouses in general is not what it should be, and the drainage and beautifying of school premises are often neglected.

The attention of the Township Trustees has been called to these matters, and they appear anxious to use all their available funds to improve general conditions. In many of the districts much improvement has been made of late years, and more rapid progress is hoped for in making the district school what it should be.

The question of consolidating some of the smaller district schools meets with some favor, and in a few instances the plan has been adopted, but I think only temporarily, and not permanently.

A. S. DICKEY,
Health Officer.

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UNION CITY.

I herewith submit sanitary report of schools and schoolhouses in our city:

Our school buildings are two, designated as Main Building and South Side School. These houses were designed, and their building supervised by Mr. W. H. Gittenger, a resident architect possessed of a few hobbies, which are best described as "everlasting durability combined with pleasing exterior and convenient interior, perfect drainage and the best possible warming, lighting and ventilation." In our school buildings he has attained success in all; for though both houses have been in use several years, they are practically new, and only vandalism will prevent them continuing so.

The main building has twelve rooms, with easy accommodation for four hundred and eighty pupils. The rooms are so arranged that every pupil receives the light from the rear and left. Every room is provided with ample closets for wraps and lunch baskets, and every closet is well lighted and ventilated. City water is supplied by taps and is potable and wholesome. The heating and ventilating is by the "Smead Hot Air System," and the heat is so distributed that the pupils are warmed from the feet up. The air in all the rooms is completely changed every twelve minutes, draughts are avoided and the children are exempt from colds and sore throats. The closets are the "Smead Dry Closet System," and their working is perfect. Sewer connections are perfectly trapped, and though it has been my custom to inspect the building frequently and at any time, I have never detected sewer gas or privy odor in the house.

In the basement are the furnaces, closets, laboratory, lunch and recreation rooms, and what has been said of other parts of the building, may be said of this. With a competent and careful janitor and woman assistant, the building is always clean and comfortable. In a word, I will say that the sanitary condition of this house is the very best.

The south side schoolhouse has six rooms arranged for two hundred and forty pupils, all primary. The plans of heating, ventilating and lighting is the same as in the main building, and is equally successful. This building is provided with automatic flushing waterclosets, which, under the care of a watchful janitor, are kept neat and clean. The plumbing is sanitary, but with any degree of neglect the boys' side of these closets would become offensive; for masculine Young America is a strong argument for Darwinism, but the janitor is a fatherly old gentleman and keeps a good lath at hand, which he applies vigorously upon any show of "monkeyism," and makes the boys toe the mark. The rooms of this house are furnished with closets for wraps and lunch baskets, and the basement supplies lunch and recreation rooms. The water supply is from the same source as in the main building, and the sanitary condition of the house is the same.

In both buildings the air supply is from outside and is about two hundred cubic feet per pupil; which air is being constantly changed, a complete change being made five times per hour. The light is so admitted and distributed as to protect the pupils' eyes, and as already indicated, the children are remarkably exempt from headaches, sore throats and

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catarrhal affections. Loss of attendance through sickness is very small. During the present school year four pupils have had scarlet fever. These cases were all sporadic and all except one of unknown origin. No deaths and no communication of contagion. The teachers have been instructed in the prodrome of "Diseases dangerous to public health," and upon the appearance of any symptoms the pupil is sent home with a note to parent or guardian to consult the family physician. This rule has hitherto been cheerfully acquiesced in, and as a result our schools have not been disturbed by contagious diseases.

Regarding smallpox, will say that the disease has not been with us at any time during the past year. Our town being on the extreme eastern border of the State, we have closely watched the proceedings of the State Boards of Health of Indiana and Ohio, using them as buffers between us and the smallpox pest which has threatened to invade us for a year last past. The disease reached our very borders, coming from the Ohio side. The law of Ohio makes the Trustees of each township a Board of Health for their respective corporations. I am glad to report that the authorities acted promptly and with energy, and the disease was stamped out without trouble or disturbance of business. For the purpose of protecting our community, and upon my own motion, I participated in the management of these cases, giving to those in charge whatever assistance my knowledge, experience and influence enabled me to.

WM. COMMONS,
Health Officer.

VANDERBURGH COUNTY.

Has the following townships and districts, namely:

ARMSTRONG TOWNSHIP

Is composed of seven districts, four of which have brick buildings, heated by stoves, and have good water supply and closets. The remaining three buildings are of frame structure, all having good water and heat supplies. General sanitary condition of township fair.

CENTER TOWNSHIP

Has three graded schools, built of brick, heated by furnaces, and have good water supply and closets in a good sanitary condition. The remaining seven are frame structures, heated by stoves, all having good water and closet supplies. Sanitary condition of township fair.

KNIGHT TOWNSHIP

Is composed of eleven districts, six of which are built of brick and heated by steam and furnaces; the remaining five are frame structures, heated by stoves. All houses are well supplied with water and closets. General sanitary condition good.

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GERMAN TOWNSHIP

Is well located and composed of eight districts, four of which have brick buildings and four frame. Most of the districts are well supplied with water and closets. The general sanitary condition of the township is fair.

PIGEON TOWNSHIP

Has three district schools outside of city limits, they being brick structures, heated by stoves and well supplied with water and closets. General sanitary surroundings good.

PERRY TOWNSHIP

Is composed of seven districts. It has three graded schools, built of brick, heated by furnaces. The remaining four are frame structures, heated by stoves. The water and drainage supply is good, all of the buildings being in a good sanitary condition.

SCOTT TOWNSHIP

Has ten districts, five of which have brick structures and five frame, all heated by stoves. Most all of the districts are properly supplied with water and closets. General sanitary condition only fair.

UNION TOWNSHIP

Is located in low lands and is composed of nine districts, all of which have frame structures, well elevated from the ground, so as to prevent them from being floated away when the flood comes, for it sure enough comes. They are all heated by stoves, and water and closet supplies are fair under the existing conditions. I hope and trust soon that the territory will be better drained, for at times surroundings look gloomy for the citizens who inhabit that territory.

W. S. PRITCHETT,
Health Officer.

VERMILLION COUNTY.

The following is respectfully submitted:

Naming the townships in order, with number of school buildings in each, commencing with Highland, the most northern: Highland, 13; Eugene, 9; Helt, 22; Clinton, 13; Vermillion, 13; town and city schools not included, 5; total, 75; number of modern structures, 62.

It will be seen that Helt Township leads in number of buildings. All but a few are up to date. The buildings in Clinton Township are all

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modern and constructed of brick. The city of Clinton contemplates erecting another brick building to accommodate its increasing population.

Nearly all outhouses have vaults. Many are built of brick. Odor is destroyed by means of lime and potash. While in many cases due regard for privacy is observed, yet there is much sinning in this respect.

About 90 per cent. of all buildings are ventilated by means of ventilating boards in the windows. Eugene Township has one metal ventilator, Vermillion two, Highland one. In Clinton Township most of the rooms are ventilated from the floor.

The roasting and freezing process for house warming is a favorite. Clinton Township has a system of inside furnaces which gives general satisfaction. All town schools are heated by furnaces except Perrysville and Eugene, each of which have four rooms.

Water supply is derived mostly from dug wells. A few schools have no supply at all, and water has to be carried in one or two instances a long distance. In one case oil was struck and the well abandoned. There are a few driven wells. As a rule all wells are cleaned prior to the beginning of school term. Many children have an individual cup carried in the dinner pail. It must be confessed, however, the common drinking cup prevails. Wherever possible the wells are situated upon higher ground than the outhouses.

There are eight two-room buildings in the county, viz., three frame and five brick. The latter are up to date. One of the frame buildings is old and will probably soon be replaced by the modern brick. The other frame structures are in good condition. Four are in the country districts, as follows: One in Clinton Township, two in Helt Township and one in Vermillion. The other four are located in the villages of Gessie, Quaker, Hillsdale and St. Bernice. Cayuga, Newport, Dana and Clinton have fine buildings, modern in every way.

Several townships oil the floors to prevent dust. As a rule all houses are thoroughly cleaned and painted before the opening of school. There is a marked effort on the part of teachers to make rooms attractive by means of pictures, plants and vines. Musical instruments are not unknown. No case of contagious disease has been traceable to a schoolhouse to my knowledge.

E. C. LOOMIS,
Health Officer.

WHITE COUNTY.

I hereby submit my report of the sanitary condition of the school buildings of White County, which I am able to make very complete through data kindly furnished by County Superintendent Thornburg.

BIG CREEK TOWNSHIP.

This township has seven school buildings, one of which is a six-room, two-story brick building, with basement under the entire building. The

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building is well lighted, ventilated and heated by hot air. The other six buildings are all one-story, one-room, frame buildings, and with the exception of one are old, poorly heated, and no ventilation except through the windows or open doors. Nearly all the windows are kept in place by pins or stops, and many are cramped and immovable. The school grounds of this township, with one exception, are fairly high. District No. 4 is very low, but may be easily drained. As a general rule the outbuildings of the district schools are allowed to become filthy and possibly contaminate the local water supply. However, but two of these buildings have local water supply.

CASS TOWNSHIP.

This township has nine one-story, one-room, frame school buildings. All the above houses except one are good, being built upon high foundations, have good light, and ventilated by means of weight windows. About half of the locations are high, while others may be drained. At District No. 3 the house is very old, with all the attendant evils. A new house will probably replace this in the near future. Only one of the above buildings is supplied with a well. The outbuildings are small and not separated by fence or wing, and in most cases not well kept.

JACKSON TOWNSHIP.

There are nine district and one four-room building in this township. With two exceptions, the district buildings are old, heated with small stoves for wood, and the ordinary means of lighting. The ventilation is very poor. Nearly all the buildings rest unevenly on the foundation, and, as a result, the windows are cramped, necessitating the ventilation through the open door.

The buildings at Districts Nos. 2 and 3 are more modern in every sense. The four-room brick building is new and conforms to approved modern plans. However, the outbuildings at this school (Idaville) are miserable, filthy makeshifts, which are immoral and unhygienic in every respect. The district outbuildings are not much better. The grounds are, as a rule, in the best possible condition. However, Nos. 3 and 9 are very low and difficult to drain or fill.

HONEY CREEK TOWNSHIP.

This township has six one-room, frame schoolhouses, which, as a whole, are well lighted, ventilated by weight windows, and heated by common coal stoves. With two exceptions the school grounds are high and have drilled wells which furnish good water. The grounds of Districts Nos. 4 and 6 are low and should be either filled or drained. The outbuildings are kept in fairly good condition and which, together with the schoolhouses, are frequently disinfected and kept in good repair. This township ranks first in the county in the sanitary conditions of its schools.

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LIBERTY TOWNSHIP.

Liberty has eleven frame buildings, one of which has two rooms. Six of these buildings have been built in fewer than that many years and are as good from a sanitary standpoint as could be expected. The other houses are on the old plan and embrace the old infirmities, etc. The school grounds are good and are kept in good condition. A township well is a thing unknown in Liberty Township. The water supply is taken from the nearest well, which usually happens to be a surface well more or less contaminated. The outbuildings are kept in ordinary condition. Nearly all these are very small and close together.

MONON TOWNSHIP.

This township has thirteen one-room frame buildings, and one brick (one-room). Six of the above buildings are new and up-to-date in modern accommodations. The remaining seven houses are old, small, and in a measure unfit for school, two of which will be abandoned this year. The brick building is new and up to date. The few township wells are so impregnated with sulphur, petroleum and other saline and vegetable substances as to make the water objectionable to the taste and more or less injurious. The outbuildings are miserable, little, unkempt things that are repulsive and in a few cases intolerable. The grounds, as a rule, are good, high and porous.

PRAIRIE TOWNSHIP.

This township has fourteen buildings, four of which will be abandoned this year. Nearly all the schoolhouses in this township are small, ordinarily lighted, poorly ventilated, and have dark, dingy walls. They are, however, supplied with good ventilating stoves.

About half the schools are supplied with good wells, but as a whole the grounds are low and muddy. The foundations are low, thus bringing the floors close to the ground, and thereby making the rooms musty and damp. In all but two of the more modern buildings the ventilation is made, if at all, through windows raised from the bottom. The outbuildings are kept in the worst possible condition.

PRINCETON TOWNSHIP.

The buildings of this township are thirteen in number, most of them old, light from right and left, ventilation through raised windows or open door, heated by ordinary coal stoves placed in or near the center of the room. Nearly all the houses have low ceilings and small windows.

With three exceptions the school grounds are low and undrained. Nos. 13, 3 and 4 are located on high, open ground. At Nos. 8, 11, 6 and 1, the water which collects from rainfall or melting of snow has no means of escaping except by evaporation, and which is also true of the waste water from the wells. The outbuildings are on a par with those mentioned in other townships. Disinfectants are unknown in this township.

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ROUND GROVE TOWNSHIP.

This township has nine frame buildings, which are well lighted and kept in good repair, heated by ordinary coal stoves, and seated by comfortable, modern desks; ventilated by means of floor grates and weighted windows. The grounds are low and muddy and there are but two township wells. The outbuildings are on a par with Monon Township.

UNION TOWNSHIP.

Union Township has ten one-room frame buildings and one two-room brick building. Nearly all the frame houses are old and unsanitary generally, ventilated through raised windows. Many are immovable, however, making the door the only means. With three exceptions the houses are located on high, clay ground. District No. 2 is low, with a permanent, marshy pond on the north of the grounds. However, this school will be abandoned this year. District No. 12 is very low and swampy. District No. 1 has an elegant two-room brick building, with all the modern conditions for heating, lighting, ventilating, closets, etc. Nearly all the schoolhouses in this township are kept scrupulously clean and beautifully decorated. The outbuildings are kept in fairly good condition.

WEST POINT TOWNSHIP.

As a whole this township has the worst schoolhouses in White County. Small, low ceilings, cramped windows, dingy walls, uneven floors, low, black clay yards and no ventilation. There is, however, one fine, up-to-date, two-room brick building in the township.

MONON.

The high school has decidedly better quarters than last year. There is a possibility that the new building will be available for next year. The sanitary conditions otherwise are the same as last year.

REYNOLDS.

This town has one public and one parochial school. The public school is taught in a two-story, three-room frame building, with ordinary sanitary conditions. The ground is low and sour. The outbuildings are in the worst contaminated condition imaginable.

WOLCOTT.

The general sanitary conditions at Wolcott are good. The school building is by no means an ideal one, however, and will not admit of better conditions.

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BURNETTSVILLE.

See Wolcott. Conditions are almost the same.

BROOKSTON.

The building at this place was overhauled last year and now admits of the very best sanitary conditions. The outbuildings are too small and illy kept. The grounds are first class.

MONTICELLO.

The school buildings of Monticello are models in conveniences and sanitation. None needed to be better.

THE COUNTY IN GENERAL.

The schools in many sections of the county have been affected more or less by various local and contagious diseases. Whooping-cough in Jackson Township and Brookston; diphtheria in Monon Township, Round Grove Township and Wolcott; chickenpox in the town of Monon; mumps in Liberty Township. None, however, were of a virulent character. This seems to have been a year for colds, coughs, sore throats, chills, etc. Steps have already been taken to have all the schoolhouses in the county, with the outbuildings, thoroughly cleaned and disinfected before the fall term of school begins.

M. T. DIDLAKE,
Health Officer.

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MISCELLANEOUS.

HEALTH ORDER No. 15.

Smallpox is spreading throughout the world to an extent not equaled since 1893. There are hundreds of cases in the surrounding States. The disease now exists in eight counties in Indiana, and there are many centers of infection. There are also, very probably, many concealed and unrecognized cases. No county can reasonably expect to remain free from this loathsome disease, as vaccination, our only sure protection, has been sadly neglected for a decade or more. The State Board therefore recommends vaccination and revaccination. Health Officers shall publish this recommendation to the people and add their own advice to the same effect. Glycerinated lymph only should be used for vaccinating and the operation done in an aseptic manner. No untoward results will follow if this course is taken.

If smallpox appears, isolation, quarantine and vaccination of the afflicted and the exposed shall immediately follow. Guards shall be employed to maintain quarantine, and outside of cities and incorporated towns Township Trustees shall furnish needed supplies. Domiciliary quarantine should not be depended upon in cities and towns.

By order of the State Board of Health.

DR. H. JAMESON, President.
DR. J. N. HURTY, Secretary.

Indianapolis, February 16, 1899.

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CONCERNING THE NEED FOR ONE OR MORE DEPUTIES TO ASSIST THE STATE HEALTH OFFICER, AND ALSO THE NEED OF A STATE LABORATORY OF HYGIENE.

It is almost a daily experience to receive letters from county, city and town officials, also from private citizens, asking help and advice from the State Board of Health. At the present time there are on file over three hundred letters of this kind, and I append a very few to show to the public their character. As there is only one State Health Officer, it is plain if he were to give every moment of his time to travel and personal visits in answer to these pleas, he could not respond to even one-half. When it is remembered that the office work must be done, which in itself is sufficient to occupy the full time of an energetic, capable man, it then becomes doubly plain that the State Board of Health could most profitably and advantageously employ at least two deputy State Health Officers. It is thought practicable and right to employ traveling deputies for coal oil inspection, factory inspection and mine inspection, and surely it would be found most profitable to look after the prevention of disease in the same way, especially as it is shown by the letters that the people surely desire that it be done.

As the State Board of Health has imposed upon it the duty of enforcing the Pure Food and Drug Law, it is obvious ways and means should be given whereby the law's command could be fulfilled.

The first great necessity for this end is a special appropriation, and the second, the establishment of a State laboratory. Without a laboratory it would be impossible to make analyses of suspected adulterated foods and drugs, and only through analysis would it be possible to convict offenders.

These truths have been recognized by all countries and States having food laws to enforce, for such have established laboratories, and through continual inspections, analyses, and prosecutions save the people from much fraud and injury to health. A laboratory is also needed for sanitary work. The pollution of streams should be looked after, sanitary water analyses should be made in the

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work of preventing water-borne diseases, diagnostic aid to physicians in determining diphtheria, tuberculosis, influenza, typhoid fever, etc., is very necessary, and is plainly the work of the State, and is being done in other progressive States.

There will be found among the letters herewith given some which testify to the need of a State laboratory, and coming direct from the people as they do, their testimony should emphasize the facts and arguments already given.

Linden, Ind., August 20, 1900.

Dr. J. N. Hurty, Indianapolis, Ind.:

Dear Doctor—Our town at present is in a very unsanitary condition, and not being experienced in the enforcement of sanitary law it is our desire that you visit our town (Linden) in the near future and start us out right. You will please bring a copy of sanitary law with you.

Very respectfully,

W. A. LOFLAND, M. D.,
Health Officer.

Cayuga, Ind., November 3, 1900.

Doctor J. N. Hurty:

Dear Doctor—We are having an epidemic of typhoid fever, and it partakes of hemorrhagic nature. Can the water or milk be analyzed to say definitely where it comes from. If so, what will be the cost for each analysis, as it would require three or four analyses. Please answer immediately.

Yours,

W. P. DARROCH.

Lima, Ind., November 17, 1900.

Dr. John N. Hurty, Indianapolis, Ind.:

My Dear Dr. Hurty—I am somewhat alarmed at the prevalence of scarlet fever in this village. As yet it has not reached the school, but I would appreciate it if you will kindly let me know what precaution I can take to keep it out of a boarding school. Should not strict quarantine be maintained in houses where there are cases? It seems that this is not done. Of course, I can keep the school from going into the village, but it is almost impossible to break off communication with tradesmen and others who come to the school.

Appreciating very much any information you can give me, I am,

Sincerely yours,

J. H. McKENZIE,
Rector.

Angola, Ind., December 17, 1900.

J. N. Hurty, M. D., Indianapolis, Ind.:

Dear Doctor—The Board of Trustees of our town request me to write you in regard to coming to Angola for the purpose of giving a talk on

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the necessity of "Good Sewerage." They contemplate the construction of a general system for the town, and would like to have the matter placed before the people by some person who is competent to speak on the subject.

Will you kindly advise me if you can come, when, and on what terms? We have had a number of severe cases of typhoid this fall and I am inclined to the opinion that bad sewerage had something to do with the cause.

Yours truly,

SOL A. WOOD.

Westfield, Ind., November 16, 1900.

Secretary State Board of Health:

Dear Doctor—I send by bearer, Mr. M. E. Cox, two samples of well water, No. 1 and No. 2, desiring, if you please, to test the purity of each. They are having a great deal of sickness, of a typho-malarial form, and I fear it is in the water. The name of the family is Morris.

Very respectfully,

S. C. DOVE,
Secretary Westfield Board of Health.

Warling, Ind., August 20, 1900.

Secretary State Board of Health, Indianapolis, Ind.:

Sir—The physician says that the water here is the cause of disease, and I write you to know if the Board analyzes questionable water and makes suggestions for the improvement of the water.

Respectfully yours,

A. W. ROGERS.

Franklin, Ind., August 20, 1900.

J. N. Hurty, M. D., Indianapolis, Ind.:

Dear Sir—We are needing so badly some improvements at the home, and it is so hard to get them done. I would be very glad indeed if you would make us a visit before September 1 (at which time the County Council will meet), in order that we may use your judgment and recommendations when they meet.

You understand the commissioners can not do anything like we want unless the Council makes appropriation for such.

Trusting I will soon see you, I will be glad to meet you at Franklin any time you may designate. We are three and one-half miles from Franklin.

Yours truly,

MRS. D. B. RIGGS,
Matron.

Geneva, Ind., August 20, 1900.

J. N. Hurty, M. D., Secretary State Board of Health, Indianapolis, Ind.:

Dear Sir—We, the undersigned, as citizens of Geneva, do hereby enter our protest and ask your assistance in ridding this place of its polluted and unsanitary condition. Vaults are left to overflow and smell so dreadfully at times that you can scarcely approach them. Garbage is left in

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barrels for months, which become a hotbed for flies and disease germs. Manure piles are left lay for months at a time and you will see pools of water and filth standing around same. Weeds are left unmowed, cellars undrained, alleys uncleaned so that the stench which arises from same is simply unbearable. Restaurants and hotels throw refuse out upon the ground and it is left there to decompose.

The sewerage is practically an unknown quantity; foul pools are in abundance. We have even seen dead cats and chickens lie in the streets until completely decayed. And to the best of our knowledge we find that our Health Officer is not a graduate of any college of medicine.

Signed by: O. B. Shafer, M. D.; L. D. Meyers, Mrs. J. P. Scheer, W. J. Heeter, Rev. J. S. Cain, G. R. Jordan, C. O. Rayn, Editor Herald; C. K. MacFadden.

Greentown, Ind., August 23, 1900.

Dr. J. N. Hurty:

Dear Sir—Greentown is in a very bad sanitary condition. The weeds are not cut down, of which there is a very rank growth; there are dug wells at nearly every dwelling; the drainage is very poor. As a result there are many cases of typhoid fever, as well as consumption. Is there not some way to get the people or officers to clean up? The officers here will not push a thing. They have been reminded of the condition many times. It is surely a crime to let the town go uncared for. Is there anything that a few of us can do to bring about better conditions? Everybody here has bowel trouble from the filth.

Hoping this may not pass your notice, I am,

Yours truly,

A. L. HARTER,
Dentist.

Fenns, Ind., September 14, 1900.

Dr. Hurty, Indianapolis, Ind.:

Dear Sir—I take this opportunity of asking you to come and investigate the sanitary conditions of the Green schoolhouse, situated in Shelby Township, Shelby County, Indiana. Also make a visit to our farm and investigate here as to the cause of continued sickness with us. When you come see Dr. Sam Kennedy. Perhaps he will come out with you. Let me hear from you at once or see you.

Box 29. MRS. W. L. McCARTY.

Winchester, Ind., September 26, 1900.

Dr. Hurty:

Dear Sir—We, the undersigned, citizens of Winchester, wish to call your attention to a matter that needs your attention at once. We have a stream flowing through the residence portion of our city, called Salt Creek, and for the past few years different parties have been draining their water-closets, stables and privies into this small stream, which becomes nearly stagnant during the summer months. The odor at night is simply awful. We have called the attention of the Secretary of our Board of Health to it, and he has failed to try to do anything. We have

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had an epidemic of typhoid fever the past two months, and several fatal cases, nearly all attributed to this creek.

We find that at least twenty people are using this creek for their closets, and several more are getting ready. We ask that you come here at once and consult with us and see what can be done, as it is simply unbearable.

Signed by: Chas., A. Kelley, Thos. S. Gordon, John B. Goodrich, Ira Tripp, I. W. Cottom, Fred G. Nichols, Perry Leanell, T. L. Ward, W. W. Reed, Owen Coats, S. D. Coats, J. J. Prettow, A. L. Nichols, G. W. Janett.

New Richmond, Ind., April 16, 1901.

To the State Board of Health of Indiana:

We, the undersigned, citizens of the town of New Richmond, Ind., and heads of families, do respectfully call your immediate attention to the presence of scarlet fever in and around the town and to open violation of the law regarding quarantine in such cases. Three cases have resulted in death, and yet the Health Officer of our town has not enforced the law by compelling persons from these places to stay at home, but they have been allowed to go and come as usual.

We desire your immediate action in the matter, that the disease may not spread farther, as it is doing every day.

Signed by: J. C. Bennett, G. P. Wills, F. E. Campbell, James Kincorder, Geo. C. Livingston, Arthur Plunkett, J. A. Work, Ed King, Ves Kemble, Chas. A. Taylor, H. G. Messer, John B. Foster, C. N. Bayland, Edgar Watts, Charlie Shote, J. N. Beckley, F. M. Perkins, G. V. Tooter, J. E. Harmon, A. D. Chauncy, Wm. Grannon.

Marco, Ind., March, 31, 1900.

State Board of Health:

Please find inclosed petition. The same contains the names of two of the heaviest taxpayers in the county. I could get many more. If this is not enough, please return and I will get more. Please let me hear from you stating when you think you will come down. Can tell you more than I want to write.

Yours truly,

CHAS. F. HENIN.

To the State Board of Health:

We, the undersigned, respectfully petition your honorable body to investigate our present school building as to its safeness and sanitary condition.

We believe it unsafe because—

1. The roof is rotten and leaky.
2. The walls are cracked.
3. The spreading of the walls made it necessary to rod the building.
4. The second floor sags several inches.
5. The building shakes until the windows rattle whenever the bell rings.

We believe it is unsanitary because—

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1. The roof leaks in all the upper rooms until the water stands in puddles on the floor.

2. The conveying pipes from the roof are off so the water runs down the sides of the building.

3. A very disagreeable odor arises from a closet under the stairway.

4. The ventilation is poor.

5. The heating is not the best.

Signed by: Chas. F. Heims, Wm. Hunter, D. L. Brewer, J. W. Harvey, Grant Bynum, Jno. L. Morgan, E. L. Creechins.

Ekin, Ind., August 20, 1900.

Dr. J. N. Hurty, Indianapolis, Ind.:

Dear Sir—I inclose you a petition from the patrons of our school, asking you to come and inspect the building. Please let us know by return mail when to meet you at the road. If you can come we will meet you at Atlanta any time and return you there. We very earnestly desire your assistance in trying to get a schoolhouse here, as the old one is in very bad shape.

Respectfully,

DR. ROSS.

To the Honorable Secretary of the State Board of Health:

We, the undersigned, patrons and pupils of the Ekin school hereby petition and request that you will come and investigate the school building at this place at your earliest convenience.

Signed by: C. H. Kassebaum, Agnes M. Kassebaum, Wm. F. Small, Della Small, J. L. Thomas, O. P. Sullee, L. E. Thompson, Frank McGuire, M. P. Horton, J. W. Caruthers, L. G. Perry, A. W. Lewis, John Coats, N. H. Linthicum, Mrs. Hattie Linthicum, William Coppock, A. B. Seward, A. E. Thompson, Mrs. Rosa Thompson, F. G. Ron, H. C. Burton, H. A. Law, N. E. Law, R. J. Law, Rebecca Law, Philip Hinkle, Linia Hinkle, Mona Hinkle, Jannie Hinkle, Mrs. Pheba Jane Burton, Mrs. India Phifer, Miss Pearl Burton, Harry Overdorf, Bertie Overdorf, Alvin Sharp, Bessie Sharp, Catherine Sharp, Annie B. Wiles, Ollie N. Wiles, Dura E. Wiles, Willie Donahugh, Charley Fox, John W. Perry, H. H. Small, J. H. Coats, Lizzie Coats, Iris Honnold, Mary McGuire, Ward McGuire, M. S. Johnson, A. L. Frazier, T. H. Small, E. M. Dickey, E. A. Dickey, L. H. Ross, Maggie Ross, Henry Dickey, Beryl Craven, Charley Craven, Harry Coats, Gus Small, W. A. Crann, H. R. Donahugh, Mrs. Flora Honnold, E. M. Bower, Nora Bower, Roy Bower, Ina Bower, E. D. Sharp, J. C. Burton, Shirley Small, Robert Coppock, Maggie Coppock, John Sullee.

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SMALLPOX IN STARKE COUNTY.

Following is a report of smallpox in Washington Township, Starke County:

There were eighteen cases well defined and four of varioloid from April 1 to June 24. The first case, Nora Cochenour, age nine years, contracted the disease at Logansport, Ind., Emma Cochenour, six, Bessie Cochenour, forty-nine, varioloid, been vaccinated. Mrs. Elmira Kiser, two; Louis Cochenour, fifty-four, were true cases of smallpox. Emma Cochenour, forty-nine, varioloid, been vaccinated. Mrs. Elmira Kiser, age fifty, had not been vaccinated. She had the disease in good style. These are all that were sick in April.

May 1, Jacob Kiser, age fifty-five, had varioloid; had been vaccinated. Lullia Kiser, age eighteen, smallpox, not vaccinated; Chester Davis, twelve, not vaccinated; J. Frank Freeter, sixteen, was quarantined at Jacob Kiser's. He went home on May 11 and took the disease that night. I did not find him until he was well broken out. The whole family took the disease from him. Mary Freeter, eighteen; Cary Freeter, eleven; William Freeter, seven; baby, ten months; Michael Freeter, forty-nine, these all well defined cases, had not been vaccinated. Sarah Freeter, forty-four, been vaccinated, had varioloid. Lincoln Gurnsey, age thirty-five; Effie Gurnsey, nine, Hazel Gurnsey, five; all had the disease and were very sick; not vaccinated. Mrs. Gurnsey, thirty, had been vaccinated; took care of her husband and children and did not take the disease. We did not have any case to take the disease in June, and I think everything was well cleansed and disinfected, so I don't look for any more from that source.

M. R. WRIGHT,
Health Officer.

SMALLPOX IN SCOTT COUNTY.

Scottsburg, Ind., April 17, 1900.

I respectfully submit the following report of the smallpox epidemic which made its appearance in Scott County, Indiana, in January, 1900, and lasted until April of the same year:

This epidemic was confined to Vienna and Finley townships, which townships border on Washington County, which was the source of contagion. It first made its appearance about January 24 in the family of Thomas Craig, in Thomastown, which is located in Finley Township, near the Washington County line. One of Thomas Craig's sons contracted the disease from a man named Hawn, who came from Washington County to Scott County to attend his mother's funeral on January 12, 1900. Mr. Hawn, who brought the disease to Scott County, thought he had the chickenpox. The first case in Scott County ran its course without medical attention, for no one knew he had the smallpox or even

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suspected it. On the 12th of February I was called to see his father, Thomas Craig, who was suffering from pain in the back, headache and fever, but not knowing he had been exposed to smallpox, I did not diagnose his case until the eruption appeared, which was four or five days after the initial symptoms. After making a diagnosis, I lost no time in quarantining his house. However, before his house was quarantined Oscar Dismore's wife contracted the disease from the same source, viz., Thomas Craig's son, and the Dismores gave a party the evening the eruption appeared upon Mrs. Dismore's body, thus exposing fifteen persons, and from that the disease spread to five other families, viz., that of H. Thomas, Jackson Giles, Rowan Smith, Albert Cox and Mrs. Buddie Robbins. As fast as the disease made its appearance in those families they were quarantined, and consequently it never spread beyond them.

As for vaccination, this epidemic shows conclusively that it is almost as sure a prophylactic as isolation. Those who had never been successfully vaccinated, or were vaccinated within two to three days after they had been exposed to persons in the eruptive stage of the disease, failed to take it, even though in some cases they were quarantined for weeks with the infected persons, and all persons so exposed who never were vaccinated took it, with but one exception.

The period of incubation in most cases was about fourteen days. The eruption appeared in from three to five days after the initial symptoms. All the cases were discrete in form, however, three or four cases approached very nearly to the confluent form. The mortality was nil. As Scott County has no colored population, all the cases were white.

W. L. McCLAIN,
Health Officer.

SMALLPOX IN LAWRENCE COUNTY.

J. N. Hurty, Indianapolis, Ind.:

Dear Doctor—On the subject of smallpox, will have to say that in June, 1899, our county was first invaded by this disease in the person of a colored man, who came from Lexington, Ky.

I was called by a contract physician who was recently from college. I pronounced it smallpox, and isolated, and put him in quarantine and next day a telegram was received from some one in Lexington, Ky., asking us to pass on the case and reply, stating that possibly it was the same they had at that city—some kind of itch.

They reported that afterward they had at that city (Lexington, Ky.) over 200 cases. My next call was in the opposite direction and thirty miles from first case. In February, 1900, found a man papulous, after three days' sickness, and was pronounced chickenpox by physician in charge. The patient was from Clay County, Ind. I accordingly quarantined, with the whole family, ten in number, in a box house of two rooms, there being no way to isolate the case. None had been vaccinated, therefore all had smallpox.

The first patient of family recovering was assisting around the house milking the cow. I asked them to notice the cow and report to me, stat-

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ing that there was a possibility of kinepox. I was informed in about a week that the cow had broken out. In about the second week the heifer running with the cow was found to be in the same condition, and I explained that the second was inoculated by eating out of the same feed trough of first cow.

My next case was in the direction of first call in January. I found a young man sick from smallpox, having been infected by a pair of gloves that had escaped the disinfection of clothes of a brother who had returned from Arkansas, who yet had signs of having had the disease. Family was promptly quarantined, and was followed by a case of varioloid in a lady who was a little slow in complying with my orders to be vaccinated, but was with her family. She was the only one affected.

Now we have another in the case of a returned visitor from Memphis, Tenn., who is now recovering.

All these cases were of the discrete form, all white except one. The colored man was more of the confluent form than the others.

Now I have to report a case of self-quarantined smallpox in a family in the southeastern part of the county. Family had experience of smallpox several years ago. A physician was called in and pronounced it chickenpox. The grandmother recognized it as smallpox and so notified the public. A son living with sister supplied family and the case ran its course. And they disinfected and were released. Grandson (patient) has an opacity of the cornea.

May 1, when I thought I had closed this report, I was called by City Secretary to examine a man that had escaped quarantine after exposure with man from Memphis, Tenn. Patient had been sick four days before he was discovered; is thirty-five years of age; eruption so thick that I pronounced it very near confluent; was sent to patient's boathouse until other arrangements were made. I suggested a tent, which has not been supplied by City Secretary to date.

Total number of cases, 17, including one case of varioloid.

F. S. HUNTER,
Health Officer.

CONCERNING THE WATER SUPPLY OF JASPER, IND.

The following correspondence explains itself:

Jasper, Ind., December 1, 1900.

Secretary State Board of Health:

Allow me to call your attention to the following minutes appearing on the record of the Board of Health of the town of Jasper:

"Comes now Edward J. Kempf, Health Officer of said town, and presents in writing to the Board the following report, viz.:

"Mrs. Fink, the wife of Reinhard Fink, suffers from typhoid fever of a very severe form of infection. As she has been closely confined to her home, which is within a few feet of the reservoir, on account of a sore leg, it is obvious that she was infected near the reservoir; therefore, this is a danger and a menace to the town, which ought to be removed at

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once, by the town getting a right to the place and disinfecting the premises.

"And it appearing to the Board from said report and statements made by said officer that typhoid fever, a dangerous and infectious disease, has broken out in close proximity to the reservoir belonging to the water-works plant, in the neighborhood of said town of Jasper, and owned and managed by said town, the patient now afflicted with such typhoid fever being confined in a dwelling-house located only a few feet away from said water reservoir, and the water therein contained and kept is likely to be infected by the germs of said disease spreading in the neighborhood thereof; therefore, now

"Resolved by the Board, That it endeavor to remove and abate such nuisance by obtaining absolute control and disposition of said dwelling-house and the lot of ground on which the same is situate, by purchase or otherwise, for the purpose of its removal and destruction, and that proper steps in that direction, in behalf of the town of Jasper, and to protect the public health, be taken. On motion it is now herewith

"Resolved by the Board, That a sanitary committee of four be appointed by the Board to assist the Board and the Health Officer of the town to design and enforce all proper measures to prevent the spread of typhoid fever. On motion it is now hereby

"Resolved, That Henry Pfau, Geo. R. Wilson, Louis H. Sturm, and Rev. Basil Hensler be appointed members of the sanitary committee of said town."

I now give the report of said sanitary committee:

For explanation of the description in the report, see the map also inclosed.

See committee's report herewith inclosed.

Acting on this report of the sanitary committee the Town Board of Trustees appointed E. J. Kempf, George P. Wagner, and Isidore Schumacher, citizens of the town, a committee to appraise the value of the property and the damage of immediate removal and to get possession of it by purchase.

This committee examined the premises and fixed the value of the property at $600 and the damages at $200 for the property at immediate removal therefrom.

It is doubtful, however, whether the possessor of the property declared a nuisance and a menace will not be dilatory in selling and vacating the property in question, as he seems to hold it, presumably, to get money from the town.

I have now presented for your consideration the facts in the case, together with a map of the locality in dispute. The Town Board seems to have done everything in its power to abate the nuisance.

Another path remains open to them. It is the tedious one offered by law, to condemn the place and acquire it in that way, which may take a long time. This letter is written to the Secretary of the Indiana State Board of Health as inquiry whether anything else can be done, and if so, what?

Hoping for an early reply, I am very truly yours,

DR. E. J. KEMPF,
Secretary Town Board of Health.

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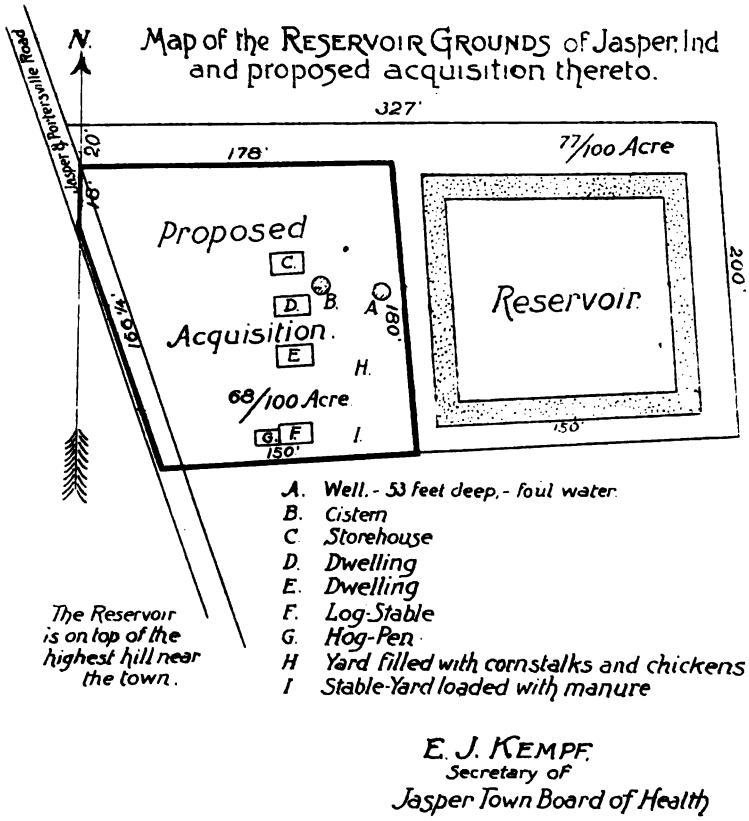
December 11, 1900.

Dr. E. J. Kempf, Jasper, Ind.:

Dear Doctor—Absence and a press of business has prevented an earlier answer to your esteemed favor of December 1. Your Town Board it seems has proceeded properly in the matter of abolishing the nuisance near your reservoir. The law gives the Town Board full power to regulate such matters. If the owner of the property holds the same at too high a price then by all means condemn it in the ordinary legal way in the courts and so secure it. Water supplies obviously should be always protected



from possible pollution, not to do so is to practice foolishness and extravagance. We are glad to hear of the advanced steps at Jasper. Depend upon it, the town will reap whatsoever it sows, and in this instance it has sown that which is good and will reap the same. Permit us to compliment you upon the clearness of your report and the accompanying chart.

If the State Board of Health can help you in any way, please command us.

Very truly yours,

SECRETARY STATE BOARD OF HEALTH.

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COMPLAINT OF NUISANCE CAUSED BY SOUTHERN INSANE HOSPITAL.

Evansville, Ind., October 31, 1899.

To the Honorable, the State Board of Health of Indiana, Indianapolis, Ind.:

Gentlemen—Relative to a ditch, known as the Austin-Cook ditch, in Vanderburgh County, and State of Indiana, running from the Southern Indiana Hospital for the Insane to Pigeon Creek; and further relative to a hogpen, under the control of the Board of said Asylum: We, the undersigned, landowners through whose lands or adjacent to whose land said ditch runs, and we citizens and residents of said county and State residing along the course of said ditch, or in the neighborhood of said Hospital, and who travel along Slaughter Avenue, declare to your Honorable Board that said hospital keeps and maintains on its land a hogpen wherein they feed and fatten hogs throughout the year, which is situated within 100 feet of Slaughter Avenue, a public highway; that said hogs are fed and fattened on the garbage from said hospital; that throughout the whole year there are filthy and noxious odors arising from said pen, which are blown in all directions for miles, making the surrounding neighborhood at times almost uninhabitable and causing many people to travel other roads when possible in preference to Slaughter Avenue. We further declare that there is a public, open ditch, known as the Austin-Cook ditch, running through the lands of said hospital and emptying into Pigeon Creek, a distance of about two miles, and running through farms and lands of various citizens of Vanderburgh County; that the said hospital turns and empties its sewage into this ditch, and that the same flows through said ditch and empties into said creek within two miles of the city of Evansville, through which city the said creek runs; that at all seasons of the year there is a filthy and nausceous odor arising from all parts of said ditch, caused by the said sewage, and that the sewage leaves a deposit in the bottom and on the sides of said ditch, which produces such obnoxious odors as to cause houses along the route of said ditch to become almost untenantable; that the great unpleasantness caused by such odors makes it difficult for landowners who do not live on their own land to rent their houses on the land through which the ditch flows and lands adjacent thereto, and that by reason thereof some of the landowners themselves have abandoned their homes and moved away; that all lands affected by the flow of said sewage have depreciated in value; that the owners who are required under the law to clean out the ditch can with great difficulty do so, by reason of the sickening and deadly smell of the said deposit, and that it is almost impossible to hire people to clean it out.

We further declare that said hogpen, and the flow of said sewage through said ditch are absolute nuisances, injurious to the health of the people, destructive of values of adjacent lands, and an infringement upon the rights of the people affected thereby.

Your petitioners are informed that the hospital violates the law in emptying its sewage into said creek so close to the city of Evansville,

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and that an injunction suit would probably be maintained; but we realize that the hospital is a State institution, and we think that our wrongs should be remedied by the interposition of your Honorable Board without legal litigation.

For the foregoing reason, we beg your Honorable Board to take the proper steps to have said hogpen removed, and to stop the flow of the sewage of the hospital through said ditch.

Signed by M. S. Stockwell, David Whitehead and 23 others.

No. 623 First Street, October 28.

Dr. J. N. Hurty:

Dear Sir—The property owners and resident farmers in the neighborhood of the Southern Insane Asylum at Evansville have been for years the victims of the most outrageous invasion of their rights by the State officials connected with the State Hospital. Since the completion of the asylum they have run their sewage in an open ditch, which the property owners are obliged to maintain at their expense. The stenches from this open sewer afflicts the whole country around, and the neighboring people move away if their circumstances will allow. Much sickness prevails along the course of this sewage ditch, which extends for about three miles and a half. We seem to be powerless, as the Superintendent of the asylum is an obstinate, ignorant man from the little town of Oakland City, who has had no previous experience, and is evidently puffed up by his elevation. There is also maintained by the asylum authorities a large hog-raising plant in the highest eminence in the neighborhood, within two hundred feet of slaughterhouse and a much traveled highway.

There numerous swine are fed with the garbage from the asylum kitchens. The swill is poured out on the ground, and runs out beyond the limits of the numerous pens. The smell in warm weather destroys the comfort and affects the health of the whole neighborhood, and must also be felt by the inmates of the asylum, who not only have to bear the smell, but are fed on the swill-fed pork.

I refer you for the truth of these statements to Mr. Frederick Cook, the well-known brewer, Capt. John Gilbert, Mr. John Ashby, and many other well-known citizens.

Please see the Governor and see if you can not do something for our relief.

Respectfully,

M. S. STOCKWELL.

PIGEON CREEK.

[Clipping from Evansville Courier.]

Limburger cheese can not be compared to the stench arising from Pigeon Creek. It is at its worst and is unendurable this year. The creek is lower than it has been for years, and the odors correspondingly greater. The slaughter houses along the bank deposit all their offal in the stream, while the banks are used as dumps for all the rotten cabbages and spoiled vegetables of all kinds.

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Street cars whiz across the bridge at a full rate of speed, drivers whip up their horses and pedestrians, who suffer, walk across the bridge with their hands on their noses. Doctors will have a fine practice for the next few weeks, or until the creek rises, for it is a perfect hotbed for disease as it is now

It is understood that an injunction will be filed against the slaughter-houses to stop the practice of making the creek a depository for all the unused portions of the animals slaughtered.

Indianapolis, Ind., October 28, '99.

M. S. Stockwell, Evansville, Ind.:

Dear Sir—We thank you for your letter of information, and also for the clipping from the newspaper. We will immediately proceed to do all we can to relieve the conditions of which you complain. Our first step will be to write to the superintendent of the asylum for his report, and also to the county Health Officer. If you desire to furnish us a more complete report, going into details and having the same signed by yourself and other offended persons, we will be glad to receive the same.

Thanking you, I am, very truly yours,

SECRETARY STATE BOARD OF HEALTH.

Tell City, October 25, 1899.

State Board of Health:

Gentlemen—The pollution of Pigeon Creek near and through the city of Evansville is simply scandalous. The water looks and smells horribly from Insane Hospital sewage and slaughter-house offal. How people can live on the banks of this creek and remain free from sickness I can't understand. My daughter lives within 150 feet of this creek. She reports the condition very offensive and that both of her brothers are ill, undoubtedly caused by the nuisance in the creek.

Something should be done in this matter.

WM. CLUTHE,
Health Officer Posey County.

Indianapolis, Ind., October 28, '99.

Dr. Wm. Cluthe, Tell City, Ind.:

Dear Doctor—The next day after your letter was received, we got another one from a person signing the name of M. S. Stockwell. The letter was sent from Evansville. This person joins with you in speaking of the horrible condition of Pigeon Creek, and lays the blame entirely upon the Southern Insane Hospital sewage. We have written to the superintendent of this asylum and also to the Health Officer of Vanderburgh County, requesting a complete report, with opinions upon the situation, and any information which they may give. Upon receipt of this and any further knowledge you can gain, we will take action.

Very truly yours,

SECRETARY STATE BOARD OF HEALTH.

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Indianapolis, Ind., October 28, '99.

Dr. G. C. Mason, Superintendent Insane Hospital, Evansville, Ind.:

Dear Doctor—We are in receipt of a very savage letter from some person, I can not tell whether a man or woman, signing the name of M. S. Stockwell, of your city. The letter says your sewage offends the property-owners throughout the whole length of the ditch through which it runs. This letter is also violent in language concerning "a large hog-raising plant in the highest eminence in the neighborhood." This letter refers us for corroboration of accusation to Mr. Frederick Cook, Captain Gilbert and Mr. John Ashby. With the letter is inclosed a public communication to the newspaper entitled "Nuisance at Asylum." I presume all this is a very old matter to you, but, nevertheless, you will recognize we are compelled to take cognizance of all communications and look into them in an open and fair way. We have also written about this to Dr. Pritchett, Health Officer of the county, and directed that he call upon you and that you will join him in making a full report to this Board.

Feeling confident you will understand us in this matter and also realize that we are very desirous of showing all the courtesies possible to you and the Southern Asylum, I am,

Very respectfully,
SECRETARY STATE BOARD OF HEALTH.

Indianapolis. Ind., October 28, '99.

Dr. W. S. Pritchett, Evansville, Ind.:

Dear Doctor—We received to-day a letter from some person, man or woman I can not tell which, signed M. S. Stockwell. This letter is savage concerning "noxious odors and the horrible nuisance caused by the sewage which drains from the insane asylum." It also tells of the horrible condition of Pigeon Creek, and ascribes this condition principally to the refuse from the asylum. Complaint is further made of "a large hog-raising plant on the highest eminence in the neighborhood of the asylum, and within 200 feet of Slaughter Avenue, a much traveled highway." In addition to all this, we have a letter from Dr. Wm. Cluthe, Tell City, in which very strong terms are used against the condition of Pigeon Creek. All of this matter has been duly set forth to Dr. Mason, superintendent of the asylum, and he has been told that you will call upon him and ask him to join you in making a full and explicit report to this Board.

Please attend to this at as early a day as possible, and do not neglect to give your opinions, together with the facts which you may gather, and any information which you may have.

Very truly yours,
SECRETARY STATE BOARD OF HEALTH.

October 30, 1899.

State Board of Health:

Your letter with reference to the complaint of Mrs. M. S. Stockwell received. I have recently been receiving some of her savage abuse myself. She is a resident of New York City and owns several hundred acres of woodland near the hospital. She makes an annual visit to Evansville

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to abuse the hospital, and the venom of the attack is somewhat increased every year. Dr. Pritchett, the Health Officer, has been out and has carefully looked into the condition of our sewage plant and piggery, and I believe he will make a report to you saying there is no room for complaint from the sources Mrs. Stockwell mentions. However, if there is anything that needs correction, I am not only willing but anxious to set things right, and will at once proceed to do so. During the summer and early fall months our sewage water is distributed over our farm by means of an irrigating plant, and there is then no room for complaint that the sewage water offends the property-owners along the ditch. I thank you for your nice letter and for the good feeling expressed toward the hospital and myself.

Very truly,

G. C. MASON,
Superintendent.

Evansville, Ind., November 3, 1899.

State Board of Health:

Your communication of the 29th at hand in regard to the insane hospital sewage, and according to request, in company with the County Commissioners, we visited the hospital and were received by the superintendent, G. C. Mason, M. D., very cordially. He showed us around the hospital and explained to us very carefully the manner in which they disposed of the hospital sewage. After a very minute explanation of the system, I do not see any defects in it whatever, and, that being true, I have no suggestion to make. I think the objectors do not thoroughly understand the manner in which they dispose of the sewage, or they would not make the objections they do. I hope they will allow the matter to drop at this point.

Second. Hogpen.—We found the hospital hogpen in as good a sanitary condition as it possibly could be kept under the existing circumstances. Therefore, I trust they will not molest you further concerning the matter.

Yours truly,

W. S. PRITCHETT.

LETTER TO COUNTY BOARDS OF HEALTH IN REGARD TO APPOINTING SECRETARIES.

The following letter was sent to all County Boards of Health in the hopes of lifting to some degree the appointing of Secretaries above politics:

To all County Boards of Health:

Gentlemen—We respectfully address you as the Board of Health of your county, to call your attention to your many and important duties under the law concerning the public health.

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The law makes it your duty, R. S. 1894, Section 6718: "To protect the public health by the removal of causes of disease when known, and in all cases to take prompt action to arrest the spread of contagious diseases, to abate and remove nuisances dangerous to the public health, and perform such other duties as may from time to time be required of them by the State Board of Health pertaining to the health of the people. They shall, annually, at their first meeting in December, elect a Secretary, who shall be the executive officer of the Board, who shall serve as such Health Officer for one year from the first of January next ensuing his election."

We respectfully urge you in making this appointment to give the preference to some one having a knowledge of sanitary science, of experience in health work, and require of him as follows:

1. He shall collect accurate vital statistics as the law commands, and see to it that physicians and householders obey the health law.

2. He shall keep an accurate record of all births, deaths and contagious diseases.

3. He shall execute all orders of the State Board and promptly answer all communications from said Board.

4. He shall keep a watchful eye over the health of the county, with special attention to the suppression of epidemics.

5. He shall make a report each quarter to the County Board of Health of all work done for the past quarter, of the condition of the health of the inhabitants of the county, together with such recommendations concerning the public health as may seem proper to him.

6. He shall by the 10th of November of each year make a report of the work of the year to the State Board and properly fill and return all the blanks of said Board.

He shall attend the Annual Conference of State Health Officers held under the auspices of the State Board in Indianapolis in May of each year.

All of the above requirements are purely in the interests of economy, for they are intended to conserve the public health, and public health is public wealth. It would also be most beneficial if some member of your Board would also attend the Annual Conference, for certainly much valuable information would be gained which could be applied to the public welfare.

Our book of instructions to Health Officers, which your present Secretary has in his possession, on pages 37 and 38, fully sets forth the duties of County Boards of Health and their Secretaries, also the duties of city and town Boards. We ask you to read these by-laws, and as they are clearly within the State law, comply fully with them.

It is certainly within your power to prevent sickness and death to some degree in your county, and thus save money and bring happiness to the people. What better thing could possibly be done?

Hoping you will act upon our suggestions, I am,

Very respectfully yours,

SECRETARY STATE BOARD OF HEALTH.

By order of the State Board of Health.

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UNSANITARY SCHOOLHOUSE AT SNACKS.

The following petition explains itself. The answer, also the letter to the Township Trustee, are appended. We are glad to announce that the bad conditions were finally all removed:

Snacks, December 24, 1900.

To the State Board of Health:

Gentlemen—We, your petitioners, respectfully request your attention and aid in the matter of the water supply at schoolhouse No. 10, Pike Township, Marion County. The well at the schoolhouse is a dug well, and furnishes polluted water, as is proven by your own analysis. Our children are compelled to carry water from their homes in bottles, fruit jars and jugs. The water becomes stale by afternoon and very often our children go without water. We contend this condition is wrong and an outrage, and a threat against health. The present Trustee, Mr. S. R. Kissel, agrees with your petitioners, but does not act. If it is possible for the State Board of Health to come to our relief we earnestly request that you do so.

Signed by L. G. Calvin, G. N. Hanes, W. C. Ruse, J. B. Hollingsworth, Harvey Wilson, J. R. Meyers, Samuel Icenogle, Samuel McCurdy, W. P. Myers, A. McCurdy, T. M. Pearcy, W. J. Fisher, J. A. Denny, D. S. Ruse, W. T. Macklem, A. T. Shaw, E. S. Tomlinson, B. Wadkins, Anderson Wilson.

December 11, 1900.

Mr. S. R. Kissell, Snacks, Ind.:

Dear Sir—We send you some diphtheria circulars and ask that you distribute them at any houses which may be invaded with the disease. If diphtheria breaks out in your schools, be sure to take prompt action by commanding your teachers to send home any child who is not well. If necessary you should employ a physician to inspect the children and send to their homes every one suffering even from a cold. Sick children should not be allowed at school for their own sake, for the sake of others and for the sake of Christianity. It is possible, if the Trustees of the State will act promptly, to save the lives of several hundred children annually. One of the circulars might well be distributed to each teacher. We also enclose some scarlet fever circulars. Feeling positive that you will do all you can to prevent disease and save life, and thanking you, I am,

Very truly yours,

SECRETARY STATE BOARD OF HEALTH.

November 3, 1900.

Mr. L. G. Calvin, Snacks, Ind.:

Dear Sir—The sample of water presented to this office which was taken from the well at School No. 10, Pike Township, has been analyzed. The results of the analysis prove the sample to be polluted. The chemical examination shows pollution of gross character, and the bacterological examination discovers the presence of intestinal bacteria. This water is

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condemned and the well from which it is obtained should be filled up with earth or gravel. It will be futile to clean it out for the purpose of obtaining a better supply of water. Money so spent will be simply thrown away. This is the experience of all those who have studied this matter for years.

We advise parents to command their children not to drink water from the well at School No. 10, Pike Township, and they should demand of the Trustee that a good driven well be put down in front of the schoolhouse—not in the rear. This is because in the front of the schoolhouse it will be in all probability the furthest removed from vaults or any possible source of pollution. By all means let the well be a driven one—not dug. Health authorities have no faith in dug wells, for they are certain to receive surface drainage sooner or later and become polluted. Polluted water is the source of an immense amount of sickness and a great many deaths, and hence the loss of a great deal of money and happiness.

SECRETARY STATE BOARD OF HEALTH.

UNSANITARY SCHOOLHOUSE AT PERRYSVILLE.

The following petition fully explains itself, as does also the letter of this Board:

Perrysville, Ind., January 29, 1900.

To the State Board of Health:

Gentlemen—We, the undersigned patrons of the school and citizens of the town of Perrysville, Vermillion County, Indiana, respectfully petition you to visit our place, or take such other steps as you may deem necessary to protect our children from the dangers of contagious diseases, so far as an immediate and thorough cleansing of the school premises can do so.

Several children have died here this winter with diphtheria, the first coming home from school sick. Two cases of scarlatina, or scarlet fever, exist now, both coming home sick from school. Last year some forty patrons petitioned the Township Trustee to cleanse the house, which he refused to do, though the walls and ceiling are coated with dust that has been there for many years. Last Monday evening a large number again petitioned him to cleanse the house, which he promised to do the following Saturday. He stopped school Tuesday to fumigate the building, then had school to continue for the remainder of the week. On Saturday and Sunday he had two rooms cleansed, and declines to stop the school to finish, but intends to work again next Saturday.

We are also informed that he is not intending to cleanse the halls, recitation rooms and basement, though the halls have never been cleansed, and the basement we believe to be very dangerous to the health of the school. We asked him if such was his intention, and he refuses to answer, but says "he will do just as he pleases about it." The Secretary of the County Board of Health says he has no authority to do more than he has already done, and we therefore appeal to you.

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The Secretary of the County Board instructed us to see Commissioner Geo. Hicks, which we did, and he said that he thought Dr. Loomis had authority to have the schoolhouse closed.

Signed by S. B. Royse, L. Byrd, H. M. Robison, H. E. Cade, A. J. Johnson, Daniel Roberts, E. G. McCormack, Lewis W. Morgan. James H. Adams, Milton Stevens, Lewellyn Jones, H. F. Royse, J. M. Sheets, Frank Pheneger, Frederick Hanah, William Vice, J. B. Stevens, Chas. Kiser, S. F. Stonebraker, Snowden Lewsaddler, W. M. Bruefield, John F. Smith, J. A. Barnes, M. D., Wm. Koehler, editor and justice of the peace; J. R. Troxell, pastor M. E. Church; John W. Mitchell, Owen R. Dickason.

January 31, 1900.

Mr. S. B. Royse et al., Perrysville, Ind.:

Dear Sir—I wish to acknowledge the receipt of your petition and give instructions concerning the same. The law declares that County Commissioners, City Councils and Town Trustees shall constitute a Board of Health, and says:

"Whose duty it shall be to protect the public health by the removal of causes of disease when known, and in all cases to take prompt action to arrest the spread of contagious and infectious diseases, to abate and remove nuisances dangerous to the public health," etc.

From this you will see that it is not only within the powers of your local Board to order the schoolhouse properly cleaned and put in proper sanitary condition, but it is its duty to do so. Your County Commissioners also have the same power and the same duty. It is apparent, therefore, that the law provides for just this exact condition. Carry your petition to your Town Board and ask that it formally pass an ordinance ordering the Township Trustee to clean, disinfect and renovate the schoolhouse, even if it is found necessary to dismiss the school for two weeks to do it. Have them put a penalty clause to their ordinance, the same to be a fine of not less than $10 nor more than $100, and make each day of refusal a separate offense. If the Trustee does not obey, have him arrested, take him before a justice and have him fined. This is the process of law and will work perfectly. If the schoolhouse of which you complain is not within the corporation of Perrysville, then secure from your County Board of Health an order like the above. It is the intent and purpose of the Constitution and the law that each community shall take care of itself. The wisdom of this is very plain. Relief from the abominable conditions which you describe and for which your Trustee is responsible is within your own hands. I think it might be worth while to investigate by consultation with some attorney and see whether or not those people whose children have suffered sickness on account of the unsanitary schoolhouse might not recover damages from the Trustee, as he has been thoroughly informed of the situation.

At the present, on account of smallpox, which consumes nearly all the attention of this office, it is impossible to visit Perrysville. Hoping you will be able to relieve these conditions of disease and death of which you complain, I am,

Very truly yours,

SECRETARY STATE BOARD OF HEALTH.

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SMALLPOX AT TEEGARDEN.

The following petition describes a state of affairs all too frequent now in Indiana. The petition was promptly acknowledged and the Health Officer of Marshall County was instructed to look into the conditions at Teegarden and see that the law was rigidly enforced. The Officer's report was to the effect that the petitioners' complaint was essentially true, and that now the law was being obeyed:

Teegarden, Ind., January 16, 1901.

To the State Board of Health:

Gentlemen—We, as citizens and business men of the town of Teegarden, earnestly request that you use some means to protect the welfare and health of the citizens of this place and surrounding community, as two members of the doctor's family of this place have peen pronounced ill with smallpox and quarantined. They seem to ignore this and say they have no smallpox.

Those waiting on the patients come out of the house on to the sidewalk, and it is the main traveled street of the town; also, the part of the family not sick do the same. Those waiting on the family have never had this disease and have been made believe that they have no such disease, and say they are going out to their homes next week, which we think would be spreading the disease or give much chances.

We do this through no malice, nor do we wish to injure the doctor or his family, but wish to protect our own families.

Signed by Frank Ritter, Timothy Lour, Clyde Mead, C. A. Lemert, merchant; G. Logan, postmaster; Jas. F. Forsyth, R. S. Allen, Ira Aldrich, E. W. Good, J. W. Falconbury, merchant; John Clark, Nell. Beck, C. W. Moore, M. D.; Wm. Aldrich, Ed. Morris, Jonathan Tenert.

TYPHOID INQUIRY.

The following letter was sent to the Health Officers of Indianapolis, Evansville, Fort Wayne, South Bend, Terre Haute, Anderson, Muncie, Lafayette, Elkhart, Elwood, Hammond, Jeffersonville, Kokomo, Logansport, Marion, Michigan City, New Albany, Richmond and Vincennes, all cities having over 10,000 population.

Dear Doctor—We wish to compile statistics for all cities of 10,000 population and over in regard to typhoid fever and the water supply. Will you please look up the best you can the number of typhoid deaths in your city for each of the years 1890 to 1899, inclusive. Also give as full infor-

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mation as you possibly can concerning the water supply for the respective years. That is, tell whether or not your city had a public water supply, its quality, and the number of users. Tell, also, for each period the number who used well or cistern water. An early reply will be much appreciated.

SECRETARY STATE BOARD OF HEALTH.

Replies from all were received, but most were to the effect that no data or reliable information as asked could be found. The replies giving information were as follows:

Indianapolis, Ind., July 25, 1900.

Dr. J. N. Hurty, Secretary State Board of Health, Indianapolis:

Dear Doctor—In answer to the questions you ask in your letter of the 7th, would say that for the past three years the public water supply has been taken from deep wells, the private supply largely from driven wells. Our records show 75 per cent. of wells in Indianapolis bad. The public supply has been good for past three years. You can answer the questions asked in regard to supply for years previous to these, as you know a great deal more about it than I do. I will inclose the following table of deaths due to typhoid for the years 1890 to 1900:

DEATHS DUE TO TYPHOID.

Years.	*Number of Deaths.*
1890	48
1891	34
1892	54
1893	110
1894	56
1895	122
1896	68
1897	51
1898	40
1899	64

I will gladly accept the position as a member of the membership committee of the American Public Health Association. Thanking you for the honor, I am,

Very respectfully,

E. D. CLARK.

Evansville, Ind., July 14, 1900.

J. N. Hurty, M. D., Secretary State Board of Health, Indianapolis, Ind.:

Dear Doctor—Inclosed you will find report of typhoid fever, as you requested, as near correct as I can give it. There were no sanitary surveys made of typhoid fever from the year 1890 to 1897, but you can see by the following table that different water was used for drinking purposes:

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TYPHOID FEVER.

YEAR.	Number of Cases Reported by Physicians.	Deaths.	Hydrant Water from Ohio River.	Cistern Filled with Water from Ohio River.	Cistern Rain Water.	Driven Well.	Dug Well.
1890	Not reported.	34	Yes.	Yes.	Yes.	Yes.	Yes.
1891	157	52	"	"	"	"	"
1892	166	26	"	"	"	"	"
1893	144	36	"	"	"	"	"
1894	183	32	"	"	"	"	"
1895	746	88	"	"	"	"	"
1896	99	22	"	"	"	"	"
1897	194	18	2	1	14	None.	1
1898	94	15	3	2	9	"	1
1899	175	30	3	4.	21	"	2

There are not over ten or twelve driven wells in our city, and not over twenty or twenty-five dug wells in the city, and these are just on the inside of the corporate limits, the territory being annexed to the city within the last two years. At least 75 per cent. of drinking water used in the city is rainwater caught in cisterns.

There has been no essential method of purification, as filtration used especially for Ohio River water. There is a special effort being made at present for filtration of the water, since the completion of our new waterworks, and it is meeting with the hearty co-operation of our Mayor, City Council and Board of Trustees of the waterworks, and I have every reason to believe that it will be successful. The only public water supply we have for drinking purposes are driven wells located in parks and in the market square.

Hoping this will be satisfactory to you, I remain,

Respectfully,

THOS. E. POWELL, M. D.

Muncie, Ind., July 16, 1900.

J. N. Hurty, M. D., Secretary:

Dear Doctor—In reply to your request, I send you the following report of the number of deaths in our city from typhoid fever from 1890 to 1900:

In 1890, ten; 1891, four; 1892, seven; 1893, fifteen; 1894, fourteen; 1895, twelve; 1896, eight; 1897, thirteen; 1898, nine; 1899, six; total, 98 deaths. From 1890 to 1892 the city waterworks derived their supply from the river without filtration. Many families used the water for drinking and cooking purposes. Open wells and driven ones, ranging in depth from 14 to 50 or more feet, were in use then, and perhaps one-half

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of the city use water from such wells at this time. From 1892 to this date the city has had a public water supply from wells 180 feet deep; during time of a fire the wells fail to furnish an adequate supply to give the fire department all the pressure needed, hence a demand is then made upon the river. At this date the waterworks company have about completed the work for filtering all the water taken from the river. From 1892 to the present there has been no change in our city waterworks supply excepting six or seven additional driven wells. Open wells are nearly all abandoned. Some few supply families that are not near the water mains. At least two-thirds of the wells now in use are driven, but most of them are not deep enough to escape soakage and contamination. As rapidly as the waterworks extend their mains I urge abandonment of wells. ninety-five per cent. of the deaths from typhoid fever occur in the districts where well water is used exclusively.

Hoping that I have made this report clear enough, I remain, as ever,

Truly yours,

S. M. RIED, M. D.

Anderson, Ind., July 12, 1900.

Dr. J. N. Hurty, Indianapolis, Ind.:

Sir—In compliance with yours of the 7th inst., I beg to offer the following report:

The city of Anderson since 1883 has had waterworks, the source of supply being intake pipes from the river. The river is also the outlet of the sewer system of the city, and one of the sewer mains empties above the intake. This water, however, is only used for sprinkling, fire and commercial purposes. Water for domestic use is all secured from wells and cisterns, the major part of the latter being deep, driven wells, and the character of the water is unexcelled. Some districts are supplied with artesian water from old gas wells, and the water abounds in iron. I don't know as to the correct proportions from a chemical analysis.

As to the reported deaths from typhoid fever for the last ten years, they are as follows: In 1890, three deaths; 1891, twelve; 1892, five; 1893, six; 1894, four (record incomplete); 1895, four; 1896 and 1897, nine deaths each; 1898 and 1899, four deaths each.

W. J. FAIRFIELD, M. D.

Typhoid deaths in the city of Lafayette for the years 1890 to 1900: In 1890, five deaths; 1891, three; 1892, two; 1893, three; 1894, three; 1895, four; 1896, six; 1897, none; 1898, one; 1899, three.

The water supply for the city of Lafayette is furnished by deep, driven wells. The water is absolutely pure and stands the test made each year. There are but very few wells used by the residents of Lafayette, not over one hundred being in use.

Very respectfully,

DR. W. TILSON.

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PROMULGATION OF HEALTH AND FOOD RULES.

The Board having completed and formally passed the proper rules under the health law concerning health matters, and under the food law concerning minimum standards and specific adulterations, had the same promulgated according to law. Both sets of rules, given herewith, were printed and transmitted to all County Secretaries with instructions how they should be promulgated according to the following letter:

Indianapolis, Ind., January 20, 1900.

Secretary County Board of Health:

Sir—We send in this mail copies of Health and Food Rules. Immediately promulgate them according to the law, Acts 1899, Chapter XVI, Section 5, which says:

"The Commissioners of said county shall cause such rules to be published for two consecutive issues of two weekly newspapers representing the two dominant political parties of said county, if such papers be published."

Be sure to procure two copies of each paper each time the rules are published. Send one copy to this office and file one in your own office with your books. You will thus send us four papers and keep four. Also make record in your Secretary's book, stating the fact that the rules have been legally promulgated; state the date of issue and name of paper, and state that you have filed the papers in the office of the Secretary of the County Board of Health. Don't fail to attend to all of this with greatest care.

By order of the State Board of Health.

SECRETARY STATE BOARD OF HEALTH.

HEALTH RULES OF THE INDIANA STATE BOARD OF HEALTH, ACCORDING TO CHAPTER XVI, ACTS OF 1899, TO PREVENT OUTBREAKS AND THE SPREAD OF CONTAGIOUS, INFECTIOUS AND OTHER DISEASES, AND FOR THE GOVERNMENT OF SUBORDINATE BOARDS OF HEALTH AND ALL HEALTH OFFICERS.

[Passed in Regular Session, October 13, 1899.]

RULES FOR THE GOVERNMENT OF COUNTY, CITY AND TOWN HEALTH OFFICERS.

Rule 1. The communicable diseases dangerous to the public health, and which shall be immediately reported to the nearest Health Officer, are hereby declared to be yellow fever, smallpox, cholera, diphtheria, membranous croup, scarlet fever, measles, whooping cough, typhus fever,

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cerebro-spinal meningitis, typhoid fever, bubonic plague, leprosy and pulmonary tuberculosis. Pulmonary tuberculosis and typhoid fever shall not be quarantined, but shall be immediately reported.

Rule 2. It shall be unlawful for any school teacher or other school officer to admit to any public, private or parochial school, whether as a pupil or otherwise, any person affected with any communicable disease dangerous to the public health.

Rule 3. It shall be unlawful for any parent, guardian or other person having control of any child affected by any contagious or infectious disease dangerous to the public health, to permit said child to attend any public, private or parochial school, or be present in any public place.

Rule 4. It shall be unlawful for any school teacher or other school officer to admit to any public, private or parochial school, whether as a pupil or otherwise, any person who has come from, or who resides in any house or building affected with any communicable disease dangerous to the public health, or who has recently been affected with any communicable disease dangerous to the public health, unless such person shall first present a certificate signed by a reputable physician stating that all danger of communicating such disease is past, and said certificate has been approved and indorsed by the Health Officer in whose jurisdiction such person may reside.

Rule 5. County, City and Town Boards of Health shall, at all times, exercise supervision over the location, drainage, water supply, heating, ventilation, plumbing, and disposal of excreta of all schoolhouses and all public buildings within their jurisdiction. No sewer or other drain through which it is contemplated to dispose of sewage shall be constructed by any public officer or person or corporation until the plans for such sewer shall have been submitted to and approved by the local Board of Health possessing jurisdiction of the territory in which such sewer or drain is proposed to be constructed. No schoolhouse or other public building shall be erected until the plans therefor shall have been submitted to, and the provisions for drainage, water supply, heating, ventilation, plumbing, and disposal of excreta shall have been approved by the local Board of Health within whose jurisdiction such schoolhouse or other public building is proposed to be erected. Upon notification by any person it shall be the duty of the local Board of Health to examine into the location, drainage, water supply, heating, ventilation, plumbing, and disposal of any excreta of any schoolhouse or other public building within its jurisdiction. If, in the judgment of such Board of Health, the location, drainage, water supply, heating, ventilation, plumbing, or disposal of excreta of any such schoolhouse or public building shall be so defective as to be detrimental to public health, it shall be the duty of the local Board of Health immediately to notify the proper officer having charge and control of such schoolhouse or public building of the nature of the existing defect, and of what should be done to correct the same, and it shall thereupon be the duty of the person or persons having charge and control of said schoolhouse or public building forthwith to cause such changes in the location, drainage, water supply, heating, ventilation, plumbing, or disposal of excreta as have been recommended by the local Board of Health to be made, and it shall be unlawful for such person or persons having authority over

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such schoolhouse or public building to permit the same to continue without making the change or changes recommended by the local Board of Health for a longer period than ten days from the time of the receipt by such person or persons of the order of the local Board of Health recommending such change or changes. An appeal may be taken in case of disagreement to the State Board of Health, and, pending such appeal, the order of the local Board shall stand.

Rule 6. In case of sickness, it shall be the duty of every citizen who shall know or suspect that the person taken sick is affected with any communcable disease dangerous to the public health, to give immediate notice to the Health Officer within whose jurisdiction such sick person may be found.

Rule 7. Every physician who shall know or suspect that any person whom he is called upon to visit, or about whom he is consulted, has any communicable disease dangerous to the public health, shall immediately give notice, together with the locality and description of the case, to the Health Officer within whose jurisdiction such sick person may be found.

Rule 8. It shall be unlawful for any person having control of any child or children to permit any such child or children to go from any house or building infected with any communicable disease dangerous to the public health (omitting pulmonary tuberculosis and typhoid fever) to attend any public, private or parochial school or Sunday-school, or any church, theatre, opera house, music hall or place of public entertainment, or any picnic or public gathering, or to travel in any street car or public vehicle, vessel, steamer, train, or to travel or be on any public highway, street, alley, public square or grounds, or in any park, without first procuring a permit from the county or local Health Officer, and they shall obey fully all official sanitary directions found in the health rules or which may be given by the Health Officer.

Rule 9. It shall be unlawful for any person to enter or leave any house or building infected with any communicable disease dangerous to the public health, to attend any church, public meeting or place of amusement, or to travel or any street car or public vehicle, vessel or steamer, or travel or appear on any public street or highway, without first procuring a permit from the Health Officer exercising jurisdiction, and obeying absolutely his directions as to all sanitary precautions which shall be observed.

Rule 10. It shall be unlawful for any person who is, or has been recently affected with any communicable disease dangerous to the public health (omitting pulmonary tuberculosis), to travel or appear upon the public streets or highways, or to appear in any public place or gathering, or to travel in any public vehicle or vessel until a certificate is made by the attending physician to the Health Officer within whose jurisdiction the case occurs, stating that all danger from infection or contagion by reason of such disease is passed, and such certificate is approved and indorsed by said Health Officer.

Rule 11. Whenever a Health Officer shall know or suspect or be informed of the existence of any communicable disease dangerous to the public health, and there be no physician in attendance, or should any physician while in attendance fail or refuse to immediately report such

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case to the Health Officer, it shall be the duty of said Health Officer, or deputy, to examine such case or cases of alleged communicable disease dangerous to the public health, and act as required by the rules governing such cases of communicable diseases.

Rule 12. In all cases where there has been an exposure or a suspected exposure to smallpox of any person or persons, it shall be the duty of the Health Officer under whose jurisdiction said person or persons may be temporarily or permanently residing, to quarantine for fourteen days such person or persons as may be exposed or suspected of having been exposed to smallpox, and to advise vaccination or re-vaccination of all who may have been thus exposed. It shall be the imperative duty of the Health Officer to enforce this rule, and in case of refusal or neglect by said Health Officer to comply with the requirements of this rule, or other rules, it shall be the duty of the Secretary of the State Board of Health to assume charge, and either in person or by his deputy enforce the foregoing rules. All vaccinations shall be made with non-humanized virus, the only exception being that, during an epidemic of smallpox, should a sufficient quantity of bovine virus not be obtainable humanized virus may be used when sanctioned by the Board of Health under whose jurisdiction said epidemic may occur.

Rule 13. Whenever a physician is called upon to attend a case of communicable disease dangerous to the public health, it shall be his duty to immediately report such case to the local Health Officer under whose jurisdiction such case may occur, and then it shall be the duty of such Health Officer to establish quarantine immediately by placarding the house and officially informing the householder, commanding the members thereof not to leave the premises except by permission under the sanitary directions of the Health Officer. The card used for placarding shall not be less than twelve inches square, with the name of the disease plainly printed thereon, and said card to be posted in a conspicuous location. The card or flag for cholera shall be black, with the name of the disease printed in white letters. The card or flag for smallpox shall be red, and have the name of the disease printed thereon. The card or flag for diphtheria, membranous croup, scarlet fever, measles, whoopingcough, typhus fever and cerebro-spinal meningitis shall be yellow, with the name of the disease printed thereon. No person shall remove or cause to be removed (except as already provided) any such card or flag, and the quarantine shall not be raised until a certificate is made by the attending physician satisfactory to the Health Officer in authority that the disease has subsided and all danger of contagion or infection by reason of such disease is passed, and that proper disinfection satisfactory to the Health Officer has been accomplished. Any person violating the quarantine or causing the removal (except as provided) or mutilation of said card or flag before a proper certificate has been placed in the hands of the Health Officer in authority, upon conviction shall be subjected to the penalties provided in section 13 of an act approved February 7, 1899. In cities and towns, flags or cards shall be provided by City or Town Boards of Health, and outside the corporate limits of cities or towns, by County Boards of Health. Every physician attending a case of smallpox, diphtheria, membranous croup, scarlet fever, or other communicable disease

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dangerous to the public health, shall use every reasonable precaution to prevent communicating the disease to others.

Rule 14. It is hereby made the duty of any person having charge of the remains of one who has died of smallpox to cause the body to be interred within twelve hours after death, and it shall be the duty of any person having charge of the remains of those who died of cholera, typhus fever, yellow fever, smallpox or bubonic plague to cause said remains to be immediately wrapped in a sheet saturated with a solution of bichloride of mercury in the proportion of one ounce of the bichloride of mercury to the gallon of water and placed in a coffin, which shall be securely closed, and the coffin not to be again opened.

Rule 15. In all cases of death from cholera, bubonic plague, leprosy, typhus fever, yellow fever, smallpox, diphtheria, membranous croup, scarlet fever and cerebro-spinal meningitis, the funeral shall be strictly private. No public or church funerals shall be held, or any person permitted to enter the house containing the remains excepting the undertaker and his assistants, unless by permission of the Health Officer.

Rule 16. The room in which there has been a case of contagious disease dangerous to the public health shall be immediately disinfected following the recovery of the sick or the removal of the remains, as follows, to wit:

All surfaces should be thoroughly washed with a solution of corrosive sublimate of the strength of one part in one thousand parts of water. The walls and ceiling, if plastered, should be brushed over with this solution, after which they should be whitewashed with a lime wash. Especial care must be taken to wash away all dust from window ledges and other places where it may have settled, and to thoroughly cleanse crevices and out-of-the-way places. After this application of the disinfecting solution and an interval of twenty-four hours or longer for free ventilation, the floors and woodwork should be well scrubbed with soap and hot water, and this should be followed by a second more prolonged exposure to fresh air admitted through open doors and windows. School books or books from a circulating library shall not be taken into or removed from any house during the prevalence of any contagious disease dangerous to the public health, and if such books have been in such houses during the prevalence of said diseases, they must be destroyed by such owner or library authorities or be properly disinfected before being returned to school or put in circulation.

Formaldehyde disinfection may be substituted for the above method of disinfection as follows:

Clothing—As here described, or as below under Sick Room—Into a trunk or box having a cover, place the garments one at a time, sprinkling each one with one or two tablespoonfuls of 40 per cent. formaldehyde, mixed with an equal amount of water. Allow the trunk of box to remain closed for five hours, then open and hang the garments in the open air. If the formaldehyde odor persists, sprinkle the garments lightly with diluted aqua ammonia.

Bed Clothes and Bed Furnishings—Sheets, pillow cases and blankets should be boiled in water for at least thirty minutes. Comforts may be treated as described for clothing, or submitted to the action of formalde-

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hyde gas in the sick room. Straw-ticks, husk and cotton mattresses. should be burned, as they are too inexpensive to trouble with. Hair mattresses and feather beds should first be subjected in the sick room to the action of formaldehyde gas and afterward sent to be steamed and renovated. Pillows should be treated as described for mattresses and feather beds. All bed clothes, except bed linen, may also be treated in the sick room as described below.

Sick Room—Make as air tight as possible, open closet doors, drawers, and all closed receptacles; scatter their contents about the room; suspend clothing and bed clothes upon lines stretched across the room, or spread out on chairs or other objects; books must be opened and the leaves spread —in short, the room and its contents so disposed as to secure free access of gas to all parts as freely as possible. Now for each 1,000 cubic feet of space take eight ounces of 40 per cent. formaldehyde, mix with one pint of water, and with a small sprinkling pot having a very fine sprinkler—a child's toy sprinkling pot is satisfactory—sprinkle the disinfectant over carpet, clothes, mattresses, stuffed furniture and sides of the room. Before sprinkling place a damp towel over mouth and nose. Close the room and allow it to remain so for not less than five hours, but ten if possible, then open, remove all articles to the open air and clean the room thoroughly.

Marriage, Birth and Death Reports.

Rule 17. City and Town Health Officers shall record in a record book all births and deaths and contagious or infectious diseases named in Rule 1, and they shall, before the 15th of each month for the month preceding, send to the County Health Officer the original returns of births and contagious disease, but the original certificates and records of death received shall, after record in the local books, be sent direct to the State Board of Health by the fifth of each month for the month preceding. It shall be the duty of the County Health Officer to make a record of returns of births, contagious diseases and marriages, in a record book. All record books shall be of the form and character prescribed by the State Board of Health.

Rule 18. All physicians, accoucheurs and midwives in this State are hereby required to report to the Secretary of the Board of Health of the town, city or county in which they may occur (within fifteen days thereafter), all births which may occur in their practice. Whenever a physician's supply of the necessary blanks on which to make returns is nearly exhausted, he shall at once make a requisition for the same on the Health Officer within whose jurisdiction he may reside, and said Health Officer is hereby required to immediately supply the demand.

Rule 19. It is ordered that each County Health Officer in this State shall, on or before the 20th day of the month following the close of each quarter, make his quarterly returns of all marriages, births and diseases dangerous to the public health, to the Secretary of the State Board of Health, on blanks prescribed and furnished by the State Board of Health.

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Rule 20. Whenever any birth occurs with no physician, accoucheur or midwife in attendance, then such birth shall be reported to the Town, City or County Health Officer by the householder or other person under whose observation such birth may occur. All such reports to be made within fifteen days.

Rule 21. All persons authorized in this State to solemnize marriages are ordered to make a report of all marriages solemnized by them to the Clerk of the Circuit Court by whom the marriage license was issued, in blanks furnished by such Clerk within seven days after the marriage is solemnized.

Rule 22. In case any person feels aggrieved at any act of a Health Officer, appeal may be made to the State Board in session or its executive officer, but pending such appeal the act of such Health Officer shall remain in force.

Rule 23. All City and Town Health Officers shall make, at least once in each year, a sanitary survey of their respective jurisdictions, for the purpose of ascertaining the existence of conditions detrimental to the public health, including in such survey stagnant ponds, imperfect drainage, sewerage, pigsties, cesspools and water closets and all unsanitary conditions, and the construction, heating, ventilation, plumbing, and disposal of excreta of all public buildings, prisons, hospitals and eleemosynary institutions, and shall make written report of their surveys with recommendations, if any, to their respective Boards, and county officers shall send a copy of their reports to the State Board.

Rule 24. It shall be the duty of all health authorities, officers of State institutions, police officers, sheriffs, constables and all officers and employes of the State, or any county, city or town thereof, to assist in enforcing the foregoing orders, rules and regulations.

Railways and Steamboats, and All Common Carriers.

Rule 25. No common carrier or any person shall bring into the State of Indiana any person sick or suspected of being sick with Asiatic cholera, smallpox, yellow fever, typhus fever, diphtheria, membranous croup and scarlet fever, bubonic plague, leprosy, or any other communicable disease dangerous to the public health.

Rule 26. When any railroad car, steamboat, vessel or conveyance coming from a place or locality declared by the State Board of Health having jurisdiction as being infected with cholera, smallpox, typhus fever, bubonic plague, leprosy or yellow fever, or having on board any person or persons affected with any of the above named diseases enters any port or place in the State of Indiana, such railway car, steamboat, vessel or other conveyance and the crew, officers, passengers, baggage, merchandise and freight shall be subject to such inspection and disinfection as may be ordered by the State Board of Health.

Rule 27. If any person is found on any railway car, steamboat, vessel or other conveyance, who is sick, or reasonably supposed to be sick, with cholera, smallpox, typhus fever, bubonic plague, leprosy or yellow fever, he or she shall be immediately removed by the health authorities within

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whose jurisdiction such person is found and isolated and properly cared for until the termination of the disease, and the necesssary expense of such isolation and care (if the person so removed is unable to pay the same) shall be a valid claim against and be refunded by the owners, agents or assigns of the railway car, steamboat, vessel, or other conveyance from which such person or persons were removed.

Rule 28. In case of smallpox, all persons reasonably suspected having been exposed thereto shall be removed from such railway car, steamboat, vessel or other conveyance and be isolated for fourteen (14) days from the last exposure. In case of typhus fever, all persons reasonably suspected of having been exposed thereto shall be removed and isolated for twenty-one (21) days from the last exposure. In case of cholera, bubonic plague or yellow fever, all persons reasonably suspected of having been exposed thereto shall be removed and isolated for five (5) days from last exposure. The clothing of persons so removed and all baggage, luggage, freight or merchandise found on any railway, steamboat, vessel or other conveyance, on which there is any person sick with cholera, smallpox, typhus fever, bubonic plague or yellow fever, and reasonably suspected of having been infected, shall be at once disinfected or destroyed, and such railway car, steamboat, vessel or other conveyance shall also be disinfected as required by the Board of Health having jurisdiction.

Rule 29. When deemed necessary by the State Board of Health to prevent the spread of cholera, and after ten (10) days' notice, each and every railway car, steamboat, vessel in or coming into the State of Indiana, and used for the transportation of passengers, shall be provided with means satisfactory to said Board of Health for disinfecting the excreta of passengers and crews.

Rule 30. It shall be the duty of the conductor of any railway train and the master of any steamboat or vessel to immediately notify by telegram the Secretary of the State Board of Health, at Indianapolis, of any case or suspected case of cholera, smallpox, yellow fever, diphtheria, bubonic plague, or typhus fever occurring on board such train, boat or vessel within the limits of the State of Indiana.

Rule 31. It shall be the duty of the Board of Health of any town, city or county to at once furnish the State Board of Health with a true copy of any quarantine orders or regulations adopted by said Board of Health as against any foreign State or any municipality or township within the State of Indiana.

Rule 32. Any person or persons failing or refusing to comply with either of the foregoing rules shall be subject to the penalties provided in Section 14 of an act establishing a State Board of Health, approved February 7, 1899.

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FOOD RULES OF THE INDIANA STATE BOARD OF HEALTH, ACCORDING TO CHAPTER CXXI, ACTS OF 1899, ESTABLISHING MINIMUM STANDARDS AND DEFINING SPECIFIC ADULTERATIONS OF FOODS AND DRUGS.

[Passed October 13, 1899.]

MILK.

Rule 1. Pure cow's milk shall have the following minimum composition: Fat, 3 per cent.; solids, not fat, 9 per cent.

Rule 2. Water existing in cow's milk in excess of 88 per cent. shall be an adulteration. Any coloring matter added, for any purpose whatsoever, shall be an adulteration. Any chemical antiseptic whatever, added for any purpose whatsoever, shall be an adulteration.

Rule 3. Milk sold or offered for human consumption that is taken from a cow that has calved within four (4) days, or from a cow that will come in or calve inside of twenty-one (21) days, is polluted, and shall be considered as adulterated.

Rule 4. Milk sold or offered for human consumption that is taken from a cow fed with damaged food, or any food which will impart a disagreeable flavor, is impure, and shall be considered as adulterated.

Rule 5. Milk sold or offered for human consumption that is taken from any sick or diseased cow, or any cow that is given polluted water to drink, or which is kept under conditions contrary to the rules of the State Board of Health governing dairies, is impure, and shall be considered as adulterated.

BUTTER.

Rule 6. The word "butter" shall mean the substance usually known as butter, made exclusively from milk or cream, with or without salt or coloring matter, and shall contain not less than 80 per cent. of pure milk fats.

Rule 7. If any of the following named substances are found in butter, they shall be considered adulterants: Water in excess of 15 per cent.; salt in excess of 6 per cent.; salicylic acid, borax, boric acid, saltpeter, formaldehyde, glucose, sodium carbonate or bicarbonate, or any other added chemical, or any other fat than butter fat, any other coloring matter than is natural to butter, except annatto, saffron, safflower, turmeric and harmless coal tar colors.

MARGARINE.

Rule 8. The word "margarine" shall mean all substances, whether compounds or otherwise, prepared in imitation of butter, and whether mixed with butter or not.

Rule 9. If any of the following named substances are found in "margarine" they shall be considered adulterants: Water in excess of 15 per cent.; salt in excess of 6 per cent.; glucose, paraffine, salicylic acid, borax, boric acid, saltpeter, formaldehyde, sodium carbonate or bicarbonate, or

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any chemical preservative. Any coloring matter or mixture of coloring matters other than annatto, saffron, safflower and turmeric and other harmless vegetable colors, and the harmless coal tar colors, shall be considered adulterants.

CHEESE.

Rule 10. Cheese not made wholly from milk or cream, salt and harmless coloring matter shall be considered adulterated.

Rule 11. Cheese containing less than 10 per cent. of milk fats shall be considered adulterated unless plainly labeled "skim milk cheese" in letters not less than one inch long, the label to be plainly exposed.

Rule 12. Cheese containing any other fats than milk fats shall be considered adulterated unless plainly labeled "Filled Cheese."

Rule 13. Cheese containing any coloring matter other than annatto, safflower, saffron, turmeric or harmless coal tar colors, shall be considered as adulterated.

Rule 14. Cheese containing any chemical antiseptic other than common salt shall be considered as adulterated, unless plainly labeled with the name of the antiseptic it contains.

Rule 15. Any article of food, as catsup, mince meat, canned meats or fish, canned vegetables, canned soups, canned fruits, molasses or syrups, which are found to be preserved by or to contain salicylic acid, benzoic acid, formaldehyde or any of their compounds or any other antiseptic, shall be considered as adulterated unless the article of food so preserved is plainly labeled with the name of the preservative or antiseptic added. The label announcing any article of food, of the class in this rule named, as preserved with any antiseptic shall be printed in plain type, either upon the original or a separate label, and it shall be firmly and securely attached on the exterior of the package, and in plain sight. This rule shall be in force and take effect October 1, 1900.

Rule 16. Coffee.—Any article offered for sale as coffee, which contains any substitute for the coffee bean in any proportion, shall be considered as adulterated unless the quantity and kind of such substitute is given as a part of the label.

Rule 17. Candy.—Any candy containing terra alba, barytes, talc, or other mineral substance, or poisonous colors or flavors, or any ingredient deleterious to health, shall be considered as adulterated.

Rule 18. Cider.—Cider is the unfermented juice of the apple. Any substitute for apple juice or any antiseptic added constitutes an adulteration, and such adulterated cider shall not be offered for sale unless each package is labeled and the name of adulterant is made a part of the label.

Rule 19. Flour.—Flour is defined as the fine and bolted meal of the wheat grain. Any flour that is mixed with the product of any grain except wheat, or is mixed with any mineral substance, shall be considered as adulterated, unless each package is labeled and the kind and amount of the admixture is made part of the label.

Rule 20. Buckwheat and Rye Flour.—Buckwheat and rye flour must be derived wholly from grains designated in the name, and any admixture of other flours or materials constitutes an adulteration, unless each package is labeled and the kind and amount of such admixture is made part of the label.

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Rule 21. Fruit jellies, fruit butters, preserves, canned fruits, fruit conserves, confections, fruit juices and syrups, etc., must consist of the fruit specified in the label, preserved only with cane sugar (sucrose), and must not contain artificial flavors, coloring matters or antiseptics. If such articles contain any substitute for the fruit, or any inferior material to make up bulk or weight, any glucose or other substitute for sugar, any artificial flavor, color or antiseptic, or any substance not naturally occurring in such fruits, except spices or other wholesome natural flavoring materials, they shall be considered adulterated, and shall not be offered for sale unless the presence of all such substances is clearly indicated by the label. This rule shall be in force and take effect October 1, 1900.

Rule 22. Honey.—Honey is the nectar of flowers and other saccharine exudations of plants gathered by bees. Honey made by feeding bees glucose, sugar, invert sugar, or other saccharine substance, is declared not to be pure honey, and, therefore, is adulterated. Adding sugar, invert sugar or glucose to honey constitutes an adulteration, and such adulterated honey shall not be sold unless the quantity and name of the adulterant is made part of the label.

Rule 23. Lard.—Lard is the fat of swine, the fat being melted and separated from the flesh. Adding beef fat or stearine, cotton seed oil, paraffine or other substitute for swine fat constitutes an adulteration, and such adulterated lard shall not be sold unless labeled and the quantity and name of the adulterant is made part of the label.

Rule 24. Molasses and Syrups.—All molasses and syrups are assumed to be made from the juice of cane or other sugar-producing plant, or the sap of the maple tree, and any syrup or molasses containing starch sugar, glucose or corn syrup shall be considered adulterated, and any substance sold or offered for sale as "maple sugar or syrup" that shall contain any brown sugar, granulated sugar or loaf sugar or colored or flavored with decoction of hickory bark, corncobs or any other similar substances, shall be considered adulterated, unless the label plainly indicates the substances used.

Rule 25. Olive oil is the expressed oil of the olive. The substitution of other oils or fats for olive oil, either in part or in whole, constitutes an adulteration, and such adulterated oil shall not be offered for sale unless labeled with the amount and kind of the adulterant.

Rule 26. Spices, mustard, pepper, etc., must not contain any foreign substances or coloring matter, introduced to dilute or cheapen the article, and any such admixture constitutes an adulteration, and shall not be sold unless its kind and amount are indicated on the label.

Rule 27. Tea.—Tea consists of the dried leaves of the true tea plant, without addition of artificial coloring matter, or filler, or extraction of any essential properties, and any article offered as tea which does not conform to this definition is considered adulterated, and shall not be offered for sale unless its true composition is given as part of the label.

Rule 28. Vinegar.—Standard vinegar is a vinegar made from the juice of the apple, containing not less than 2 per cent. of apple solids and 4 per cent. acetic acid. All vinegars labeled "apple," "cider," "fruit" or "orchard" vinegars are assumed under the law to be standard vinegars. Vinegars not made from the juice of the apple must be labeled truly of

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what they are made, as "malt vinegar," "distilled vinegar," or "wine vinegar." Otherwise they are to be considered adulterated. If artificial coloring matter is used, this must be stated on each and every label. Vinegars to which other acids than acetic acid have been added are adulterated. Vinegars containing less than 4 per cent. absolute acetic acid may be sold, provided the percentage of acetic acid is made part of the label.

Rule 29. Baking Powders.—It shall be unlawful for any unwholesome or deleterious baking powder to be sold or offered for sale within the State of Indiana.

Rule 30. Wines, Brandies, Whiskeys.—The standards and methods of examination of the United States Pharmacopœia governing wines, brandies and whiskeys shall be the standards and methods of examination of wines, brandies and whiskeys in the State of Indiana.

Rule 31. Food inspectors, when securing samples of food or drugs for analysis, shall, if the quantity procured be sufficient in amount, divide said sample into three equal parts, marking each one with date of collection, name and residence of vendor, name and residence of inspector, and shall number the several portions 1, 2, 3. No. 1 shall be left with the vendor, No. 2 retained by the inspector, and No. 3 reserved for or sent to the chemist selected to make the analysis. All these samples or portions shall be so sealed as to show upon sight any breaking of said seal.

Rule 32. Whoever violates any of the provisions of these rules shall, upon conviction, be fined in any sum not exceeding one hundred dollars, as is provided in section 2, Chapter CXXI, of an act approved February 28, 1899.

The above rules were duly promulgated in all but the following counties: Blackford, Decatur, Elkhart, Jennings, Lake, Ohio, Switzerland and Wabash.

In these counties the Commissioners refused to comply with the law. The State Board of Health duly informed the various prosecutors of the fact, and there the duty of the State Board ends.

UNSANITARY CONDITIONS AT KIRKLIN.

Kirklin, Ind., August 2, 1900.

To the State Board of Health, Indianapolis:

Gentlemen—On the 22d ult. I submitted (in writing) to the local Board of Health of Kirklin a report (a copy of which I herewith hand you) calling their attention to certain unsanitary conditions then existing in the town of Kirklin, at the same time recommending ways and means by which said conditions could be corrected.

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Since the filing of said report the weeds on the streets have been mowed down, but as to the other conditions. no ordinance has been made and the Board stiffly refuses to even meet to consider the recommendations.

I made these suggestions in good faith, and keenly feel the disappointment in not having the support of the local Board; but, however great may be my disappointment, I feel that the existing conditions are so grossly wrong that to drop the matter now would be a violation of my trust.

I would therefore ask that your honorable body take cognizance of these facts and at your earliest possible convenience give us such relief as in your judgment seems proper.

Thanking you in advance for an early investigation, I am,

Very truly yours,

A. P. PARKER,

Secretary Kirklin Board of Health.

To the Honorable Board of Health of the Town of Kirklin, Ind.:

Gentlemen—I wish to report to your honorable body the following unsanitary conditions now existing in the town of Kirklin, Ind., under your jurisdiction as the Board of Health of said town, viz.:

Condition Number One.—I find a number of streets in the town of Kirklin in an unsanitary condition because of a very heavy growth of weeds; which, in my opinion, is a menace to public health. I would respectfully recommend your honorable body to remove said unsanitary conditions by mowing said streets.

Condition Number Two.—A number of vacant lots are in a very unsightly and unsanitary condition because of the rubbish and thick growth of weeds existing thereon. I would recommend that your honorable body notify the owners of said lots to mow the weeds and burn the rubbish on the same.

Condition Number Three.—The public hitching racks as now maintained on the streets of Kirklin are in such a condition as to call forth your most strenuous efforts to remove all causes dangerous to public health and prevent the spread of contagious and infectious diseases. The accumulation of animal excrement about said racks produces an offensive odor, an unsightly appearance and a condition which is destructive to public health. Therefore I would respectfully recommend to your honorable board the speedy removal of all said hitchracks. I would further represent that serious complaints have, by parties directly affected, been made against the maintenance of the following racks, viz.: The one maintained in front of R. C. Gorham's business room, situated on lot number forty (40), block five (5) in the original plat in the town of Kirklin, Ind.; also the one maintained in front of lots thirty-seven (37) and thirty-eight (38) in block five (5) in the original plat to the town of Kirklin, Ind.

I make the above recommendations in accordance with the rules and regulations as issued by the State Board of Health, which body has been mailed a copy of these recommendations.

A. P. PARKER,

Secretary Board of Health.

July 22, 1900.

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Indianapolis, Ind., August 4, 1900.

Dr. A. P. Parker, Kirklin, Ind.:

Dear Doctor—We are in receipt of your letter and copy of the report, with its recommendations, which you presented to your local Board of Health. In accordance with promise a letter has been addressed to the President of the Town Board, urging that said Board take action to remove the unsanitary conditions. We have stated wherein hitchingracks may produce a nuisance and be a menace to the health of a community. We have also quoted the law and said that while the State Board of Health is commanded by the law to look after the unsanitary conditions in the State, and given power to direct local Boards of Health, still it will not do so until the locality refuses to act. We have urged the President to take action purely for the best interests and the advancement of the town of Kirklin. We pointed out how the epidemic of dysentery, which has been so fatal at Sheridan, might have been avoided. A little over one year ago I visited that town, met some citizens and the Town Board and told them they were surrounded with the conditions which produce epidemics. A man who had passed middle age smiled patronizingly and said he was pretty well and so was the community. Such men are not the best ones in the community, for it is their conceit which makes them believe they are the whole thing. Despite his smile and despite the fact that he still lived, the conditions existed, and you know, yourself, the result. Had sanitary advice been accepted and acted upon, many of the precious lives sacrificed, with the breakup of homes, the sorrow and misery, would all have been prevented.

We hope our letter to the President will give some action. If nothing is done, however, within ten days, please let us know.

Thanking you, I am,

Very truly yours,
SECRETARY STATE BOARD OF HEALTH.

Indianapolis, Ind., August 4, 1900.

President Town Board, Kirklin, Ind.:

Dear Sir—Permit us to respectfully address you concerning the sanitary affairs of your town. You, of course, recognize that a clean, tidy, industrious and honorable person is always a success, and is always a desirable citizen. The same principle of cleanliness and tidiness which applies to individuals also applies to cities and towns. A clean, tidy town means clean, tidy people. A dirty town with unclean streets, with mudholes, filthy back yards and bad smells, simply means that the people there are not of the order which is most desirable. We have a report from your City Health Officer telling specifically of certain unsanitary conditions which exist in your town. Unsanitary conditions are always a threat against the public health. Self interests and a desire for the advancement of the community and also the State will dictate that unsanitary conditions shall not exist. The law says Town Boards "shall in all cases take prompt action to arrest the spread of contagious and infectious diseases, and abate and remove nuisances dangerous to the public health,

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as directed or approved by the State Board of Health, and perform such other duties from time to time as may be required of them by the State Board of Health pertaining to the health of the people."

This and other clauses indicate clearly that the representatives of the people deem it wise and to the best interests of the State that conditions of disease and ill health shall not exist. Your Town Board has absolute power to do all that is necessary for the abatement of unsanitary conditions. We urgently recommend, therefore, that a proper order be issued requiring the cleaning up of the town, and that the town clean up its streets, fill up any mudholes which may exist, abolish any hitchingracks, which you know always constitute a nuisance, and, indeed, do everything which is necessary to make the town clean and tidy. The advantages gained by so doing will far exceed the expense. It may be your town has been very health, and we hope this is true, but if it is not in a good sanitary condition you have a threat hanging over your heads of epidemics attended with death.

The probabilities are that you are well aware of what has just occurred near Sheridan. Last year I visited that town, met with some citizens and the Town Board, urged them to thoroughly clean the place and take sanitary precautions. I told them they had the conditions of disease, and was answered with a smile to the effect that Sheridan was a very healthy place. Notwithstanding, the place has been visited with an epidemic and a score or more of children have been borne from their homes and placed in the graveyard. This was quite unnecessary, and had our advice been heeded the loss would not have occurred. It may be that Kirklin has a future of this kind and we urge, purely for your own sakes and for the sake of the State, for the better advancement of the State's interests, that a thorough cleaning be given to your town. The expense of the funerals at Sheridan and vicinity was probably enough to have cleaned the town and removed the conditions which caused the deaths. In addition to this, had the work been done the children would have been saved. and that is worth much to any community.

We feel confident that you will understand fully the spirit of this letter. We have no desire to interfere, although the law gives the State Board full power to do so, and simply pleads that you, upon the basis of your own best self-interests, take some action in the matter. With respect, I am,

Very truly yours,
SECRETARY STATE BOARD OF HEALTH.

COMPLAINT OF TUBERCULOSIS IN A TEACHER.

Complaint was made by a patron of school district No. 2, Brandywine Township, Shelby County, that the teacher probably had tuberculosis; at least he was weak and much emaciated, and if he did have tuberculosis was a menace to the health of the pupils.

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Accordingly a letter concerning the matter was sent to Dr. J. B. Stewart, County Health Officer, directing him to examine into the matter. Dr. Stewart accordingly made examination of the teacher, Mr. Warren McDonald, and pronounced him free from tuberculosis. Mr. McDonald was also examined by Dr. Frank A. Morrison, of Indianapolis, who also declared he did not have the disease. Both physicians gave written statements as above, and then the matter was dropped by the State Board.

NUISANCE AT BROOKVILLE.

Brookville, Ind., October 12, 1899.

Secretary State Board of Health:

Dear Sir—The inclosed petition will explain itself, except that the canal is owned by the Midland Paper Mills Company and runs along the west side of the town a distance of twelve squares. The Town Council has a contract with the above mill company to use the canal for a sewer, consequently the Town Board will do nothing for the relief of the petitioners. The factories, hotels and public water closets empty into the canal. The basin at the southern part of town will contain a great amount of water which will not run off on account of the outlet below.

Very respectfully,
GEO. E. SQUIER, M. D.,
Health Officer.

To the Honorable State Board of Health of Indiana:

We, the undersigned citizens of Brookville, Franklin County, Indiana, do humbly petition you to take into consideration and if possible give us relief in the following matter:

We desire the maintenance of a full head of water in the old canal and basin (the basin amounting to one acre or more) sufficient to have a good current of water, or have the water turned off and out of the canal just below the Midland Paper Mills.

The canal is used for a sewer for waterclosets and street gutters of the town of Brookville, and is offensive in odor and dangerous to the public health, especially to us living near it.

The above named mill uses all of the water during the week, causing the strip of canal and basin below it to contain stagnant water, and in the evaporation of the water remaining the odor is bad. On Sunday the mill is not running, when the water comes in and leaves a deposit of material for the week following.

The water of said canal and basin is beyond all doubt tainted and polluted, impure and full of disease germs, as was demonstrated by your

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analysis of the water from ice taken from the basin last winter, and hence is a menace to the public health of the town of Brookville, Franklin County, Indiana.

Therefore, the undersigned humbly petition you and invoke your aid which you are able to render them by virtue of the power given you by the State of Indiana to condemn said canal and basin as a nuisance. By so doing you will render the undersigned justice and aid in preserving the public health of the town of Brookville, Franklin County, Indiana.

Signed by Jos. A. Fries, Miller, Henry G. Schmitt, Louis J. Aulbach. Frank A. Dietz, Charles Dowdy, George Schlapps, Louis Schrank, Brookville Elec. Co., Chas. B. Searrin, Bayard R. Quick, Frank Gerber, Simon Zalese, J. C. Tufforge.

Indianapolis, Ind., October 16, 1899.

Dr. Geo. E. Squier, Brookville, Ind.:

Dear Doctor—We acknowledge the receipt of the petition of citizens of your city and your letter accompanying the same. There are two ways to proceed in this matter. First, the signers to this petition, either as a body or any single individual, may make affidavit that a nuisance exists, and in the document describe the nuisance in full. This will be brought before the judge and he will take cognizance thereof, and enter into an investigation of the matter. If upon investigation it appears to the court that a nuisance exists, a mandate will issue for its abatement.

The second method is for your own county or city Board of Health, being called to order and sitting as such, to issue a formal order declaring the conditions you have described to be a nuisance, and ordering their abatement, and prescribing a penalty for failure of the offending parties to obey. Your City Council, which you know is, ex officio, a Board of Health, may also add a clause that if the nuisance is not abated within a certain time the City Marshal may proceed to abate it and the expense will be collected against the property of the offending persons as taxes are collected. In this second instance, it is very likely to get into court, and so the first method detailed is probably the best one to pursue. Your County Health Board could also order the abatement of the nuisance, and if there was refusal to obey, appeal to the court for mandate would have to be made. The State Board of Health has no right to go into this matter unless the local authorities prove themselves entirely impotent.

Would it not be possible by flooding and washing out the canal every few days to keep the nuisance down? If this can be done, it should be done, for as I read from your letter, the abating of the canal would simply mean the driving away of the paper mill.

We hope your petitioners will find one of the above methods all sufficient for their needed relief.

SECRETARY STATE BOARD OF HEALTH.

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OPINIONS OF THE ATTORNEY-GENERAL UPON CERTAIN QUESTIONS.

January 13, 1900.

Dr. J. N. Hurty, Secretary State Board of Health:

Dear Sir—I am in receipt of your letter asking if the State Board of Health has any relation with or control over the Indianapolis Board of Health.

It is true that the city of Indianapolis, while under a general law, is governed by an act of March 6, 1891, which applies to no other city in the State, and that Section 114 of that act creates a Board of Health and Charities, and, as amended by the act of March 4, 1899 (Acts 1899, p. 463), provides for the election by the Board of Health and Charities of the city of a City Sanitarian, who "shall be Secretary and executive officer of said Board," and attend to the proper registration of births, deaths and marriages

The act also provides that "said Sanitarian may be removed at any time for incompetency or neglect of duty." The act of February 7, 1899. to amend the act to establish a State Board of Health provides by Section 3 for an amendment of Section 9 of the original law, and, as amended, the law reads thus:

"It shall be the duty of the Secretaries of town and city Boards of Health to make reports of such facts and statistics as may be required under instructions from and in accordance with blanks furnished by the State Board to the Secretaries of the County Boards of Health in which such town and city Boards of Health are subordinate."

It is also provided by the amendment to Section 10, in Section 4 of the act of 1899, that:

"No undertaker, sexton or other person shall bury any human body until he has received a permit to do so from the county, city or town Board of Health or its duly appointed agent. No such permit shall be issued until there has been delivered to such Board or agent a certificate of death according to the form prescribed by the State Board of Health."

Section 8 of the original law, as amended by Section 2 of the act of 1899, provides as follows:

"The State Board of Health shall have power to remove at any time any county, city or town Health Officer for intemperance, failure to collect vital statistics, obey rules and by-laws, keep records, make reports or answer letters of inquiry of said State Board concerning the health of the people."

It is perfectly clear that the amended act to establish a State Board of Health applies to all cities and towns throughout the State, under whatever statute incorporated, and that it is the duty of the City Sanitarian of Indianapolis, as Secretary of the Board of Health and Charities of that city, to report vital statistics under instructions from and in accordance with blanks furnished by the State Board of Health to the Secretary of the Marion County Board of Health, and the City Sanitarian is also prohibited —as are all other Health Officers—from issuing a burial permit until

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there has been delivered to the Board of Health and Charities, or to its duly authorized agent, a certificate of death according to the form prescribed by the State Board of Health.

There is absolutely nothing inconsistent between these provisions of the act of 1899 and the provisions of the city charter of Indianapolis on the subject of health.

It would certainly be a most extraordinary thing for the General Assembly of Indiana to create a general law for the return of vital statistics throughout the State, and exempt from its provisions the most important city in the State.

I have the honor to be

Very truly yours,

WILLIAM L. TAYLOR,

Attorney-General.

August 23, 1900.

Dr. J. N. Hurty, Secretary State Board of Health:

Dear Sir—In your communication of the 18th you ask:

"Have the Boards of Trustees of incorporated towns, acting as Health Boards, the power to summarily discharge the Secretaries of such Boards, who have previously been properly elected by such Boards?"

Section 6718, R. S. 1894, which was in force prior to the enactment of the Legislature of 1899 providing that Trustees of each town, and Mayor and Common Council of each incorporated city, and Board of Commissioners of each county, should constitute a Board of Health, ex officio, for such town, city or county, respectively, of the State, also provided for the election of a Secretary as follows:

"They shall annually, at their first meeting in December, elect a Secretary, who shall be the executive officer of the Board, who shall serve as such Health Officer for one year from the first of January next ensuing his election. He shall receive such compensation from the town, city or county treasury, respectively, as the Board electing him may determine. The records of the County Board of Health shall be kept at the county seat."

This section provides for the election of an officer for a definite term, and it has been frequently held by our Supreme Court that where municipal boards have exercised the power conferred by the Legislature of electing an officer for a definite term, when they once exercise that power, they exhaust it, and can not again exercise the same power, for, as the court say, "if it were otherwise, parties would never know when the matter was at an end."

> Gavin v. Board of Commissioners of Wells County, et al., 104 Ind., p. 204.

This precise question has been decided in the case of Wier v. State ex rel. Axtell, 96 Ind., p. 311. In that case the Board of Commissioners had elected a Secretary and subsequently undertook to annul said election and elect another person to take the place of the one first elected, and the Supreme Court held that the Commissioners had no power to do this. Speaking on this question, the court say, on page 312:

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"County Commissioners, having once exercised the power of selecting an officer, can not annul the election by electing another person. If it were otherwise, then the Board might elect every month, week, or even every secular day of the year, and the statute never contemplated any such a thing as that. Where an inferior court is entrusted with the power of appointing an officer for a term definitely fixed by the statute, the officer will hold for the term so fixed. An officer whose term is designated by statute takes the office for that term, and does not hold it at the pleasure of the appointing power. The provision of the statute is that the board shall annually, in the month of January, elect a Secretary, and this fixes the term of office at one year; that is, from the month of January of one year to the month of January of the succeeding year. A statute, empowering an inferior tribunal to do certain things, is an enabling act empowering it to do just what is provided in the act. In the present case the enabling act authorizes the Commissioners to elect a Secretary of the Board of Health for one year, and when the Commissioners once exercise this power they exhaust it, and can not, unless there is a vacancy or something of the kind, hold another election until the time fixed by law has arrived. * * *

"In the present instance the appointment was made and accepted by the appointee, and there remained nothing to be done, for the act was duly consummated. The election of an officer is not an act of an ordinary business character in which a discretion is exercised by the Commissioners, but is the exercise of a special statutory authority, and few rules are better settled than that such authority must be exercised in conformity to the statute conferring it. It can not, therefore, be justly held that the rules which prevail in respect to the transaction of ordinary business, or the management of ordinary county affairs, apply to the case of the election of an officer under a statute especially conferring authority to elect the officer at a designated time, and for a definite period."

Under this decision, and other decisions of our Supreme Court upon analogous principles, I must hold that Town Boards have no right to summarily discharge the Secretary of the Town Board of Health.

I would say, further, that under Section 8 of the acts of 1899, page 17, the State Board of Health has the power to remove, at any time, for causes therein stated, the Secretary of any local Board of Health, but this power is not vested in any other body.

I have the honor to be,

Very truly yours,

WILLIAM L. TAYLOR,
Attorney-General.

Indianapolis, Ind., December 15, 1899.

A. G. Dunn, Esq., Truant Officer, Mt. Vernon, Ind.:

Dear Sir—If the State Board has ordered that school children who have not been vaccinated be excluded from the public schools, and the County Commissioners and local Health Officers have promulgated the order of the State Board in Posey County, such order is within their authority and must be obeyed.

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If the law gives to the State Board the discretion to say what measures are necessary to prevent outbreaks and the spread of contagious, infectious and other diseases, as it does (Acts of 1899, p. 17), the people of the State must obey their rules, regardless of their individual judgments as to the propriety of the rules. The preservation of the public health is of higher importance, even, than the school system; and where there is apparent conflict, your duties must yield.

In answer to your questions:

Question 1: When a vaccination proclamation has been issued by the State Board and promulgated by the County Board, whose duty is it to compel children to be vaccinated?

Answer: It is no one's duty to compel children to be vaccinated. During the existence of the proclamation, however, children whose parents refuse to permit them to be vaccinated can not attend the schools, and no one can compel them to attend.

Question 2: Can any one enforce vaccination? If so, who?

Answer: Under the law as it now stands, no one can compel vaccination. The only penalty for refusing to permit children to be vaccinated is their exclusion from school privileges.

Very truly yours,

W. L. TAYLOR.

December 30, 1899.

Dr. J. N. Hurty, Secretary State Board of Health:

Dear Sir—In your communication of the 29th you ask:

"Are Secretaries of County Boards of Health to receive 1¼ cents per capita per annum for the total population of their respective counties, or only for the population of said counties outside of the incorporated cities and towns?"

It appears that the theory of the Legislature of 1899, in amending the law establishing State Boards of Health, on page 17, Acts of 1899, was that the State Board of Health would be the head, the County Boards of Health and Secretaries should be second, and subordinate to the State Board of Health, and the City Boards of Health should be subordinate to the County Boards of Health.

The latter part of Section 9 of said act provides:

"It shall be the duty of the Secretaries of town and city Boards of Health to make reports of such facts and statistics as may be required under instructions from and in accordance with blanks furnished by the State Board to the Secretaries of the County Boards of Health in which such town and city Boards of Health are subordinate. It shall be the duty of the County Boards of Health to enforce all rules and regulations of the State Board of Health in their respective counties which may be issued from time to time for the preservation of the public health and for the prevention of endemic and epidemic and contagious diseases."

From this portion of said section, it was the evident intention of the Legislature that Secretaries of the County Boards of Health should have complete supervision of health affairs of the whole of said county, and be responsible for the same.

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This being true, it is my opinion that they would be entitled to compute their salary upon the whole population of said county, including cities and towns.

I have the honor to be,

Very truly yours,

W. L. TAYLOR,
Attorney-General.

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Statistical Tables.

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Statistical Tables.

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TABLE 1.

Showing Deaths from all Causes by Months and Ages, Year Ending September 30, 1900. Bertillon Classification.

	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
All causes (stillbirths included)	2,966	2,858	3,363	3,174	2,740	2,351	3,099	3,428	3,243	3,045	2,557	2,692	35,516
Stillbirths	160	115	148	111	112	111	128	133	127	97	99	115	1,456
Typhoid fever	109	52	40	39	44	27	65	144	245	323	208	144	1,440
Measles	2	2	5	25	27	7	5	4	2	1	2	3	85
Scarlet fever	17	15	17	16	12	9	2	1	5	14	13	20	141
Whooping cough	15	16	17	24	26	32	60	40	24	8	12	13	287
Diphtheria and croup	90	70	68	30	14	13	15	40	64	111	125	105	745
Influenza	53	70	98	101	34	19	12	4	1	13	8	11	424
Smallpox	1	4	2	3	2	2	3	.....	2	.....	.....	.....	19
Other epidemic diseases	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	6
Malaria	17	18	13	17	21	14	39	58	75	61	23	18	374
Tuberculosis, lungs	300	300	318	339	266	301	244	271	212	274	248	291	3,364
Other forms of tuberculosis	117	122	136	116	139	93	138	121	131	92	68	108	1,381
Cancer	75	82	109	93	104	75	93	92	90	81	76	76	1,046
Rheumatism	23	19	29	36	27	14	24	12	9	14	21	28	256
Diabetes	1	.....	.....	.....	.....	15	4	12	19	16	28	16	111
Other general diseases	44	35	45	30	48	38	36	26	31	35	26	36	430
Simple meningitis	35	37	32	40	46	21	42	47	37	48	37	25	447
Cerebro spinal meningitis	28	27	42	34	28	41	37	39	50	27	20	18	391
Cerebral congestion and hemorrhage	107	75	85	92	98	87	91	88	79	97	67	90	1,056
Paralysis	101	94	118	93	94	86	90	103	89	86	71	84	1,109
Convulsions, infants	40	28	38	29	33	26	47	32	37	18	23	30	381
Other nervous diseases	74	73	85	95	89	98	90	120	115	81	80	71	1,071
Organic heart disease	148	170	166	177	169	154	147	138	127	115	112	136	1,759
Other circulatory diseases	44	35	44	49	37	15	41	31	36	68	37	33	470
Bronchitis	60	72	82	71	44	27	28	19	24	29	34	32	522

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TABLE 1—Continued.

Showing Deaths from all Causes by Months and Ages, Year Ending September 30, 1900. Bertillon Classification.

	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
Broncho pneumonia	25	35	42	32	20	14	4	8	5	9	12	22	228
Pneumonia	350	400	574	466	214	80	58	57	51	80	124	201	2,655
Pleurisy	1	.....	4	1	4	2	.....	1	4	2	2	10	31
Other respiratory diseases	37	39	35	32	22	23	34	29	39	47	69	57	463
Stomach diseases	47	51	59	43	60	52	73	77	71	51	47	45	676
Infantile diarrhœa	19	11	21	13	32	111	480	627	436	198	80	21	2,049
Diarrhœa and enteritis	19	18	26	16	21	9	42	58	66	33	21	16	345
Dysentery	8	4	6	5	5	6	97	79	52	36	15	10	323
Liver diseases	39	41	46	63	52	44	31	38	43	48	37	48	530
Peritonitis	26	23	29	29	33	27	28	36	32	28	21	13	325
Iliac abscess	14	4	13	10	13	9	10	12	16	5	10	9	125
Other digestive diseases	45	44	39	59	41	32	65	79	59	40	39	37	579
Bright's disease	143	122	152	127	117	94	108	118	85	104	91	107	1,368
Other genito-urinary diseases	14	19	24	14	22	28	25	19	24	38	35	12	274
Diseases female genital organs	35	33	45	35	40	27	27	33	28	39	45	48	445
Skin diseases	22	29	20	32	16	19	29	23	20	15	19	17	261
Diseases locomotor system	1	3	9	1	4	1	1	2	9	2	6	5	44
Malformations	25	18	36	14	27	25	14	17	21	20	14	11	242
Diseases of infancy	53	16	15	35	18	44	31	36	58	111	64	43	524
Diseases of old age	108	104	80	100	70	77	59	82	69	90	68	124	1,031
Suicide	13	6	6	22	32	14	17	19	16	15	18	18	196
Accidents	88	93	97	102	95	112	138	138	112	132	113	114	1,334
Homicide	1	1	.....	2	2	6	5	.....	.....	4	2	4	27
Causes ill defined	98	146	188	195	181	80	179	199	207	124	109	127	1,833
Premature birth	74	66	60	66	85	80	63	66	89	65	58	65	837

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TABLE 1—Continued.

Showing Deaths from all Causes by Months and Ages, Year Ending September 30, 1900. Bertillon Classification.

	Under 5.					5 to 10.	10 to 15.	15 to 20.	20 to 25.	25 to 30.	30 to 35.	35 to 40.	40 to 45.	45 to 50.	50 to 55.	55 to 60.	60 to 65.	65 to 70.	70 to 75.	75 to 80.	80 and Over.	Unknown.
	0.	1.	2.	3.	4.																	
All causes (still-births included)	7,766	1,565	792	447	353	1,049	761	1,377	1,621	1,456	1,326	1,287	1,194	1,204	1,281	1,493	1,627	1,980	2,155	1,877	2,425	480
Stillbirths	1,456																					
Typhoid Fever	13	14	18	26	22	105	136	229	193	120	106	98	71	52	34	50	28	28	25	16	9	47
Measles	24	10	8	5	2	10	3	1	5	4	4	2	3	1	2						1	
Scarlet fever	7	17	22	20	18	42	7	4	1													3
Whooping cough	172	67	24	13	3	6	2															
Diphtheria and croup	52	73	106	94	76	230	70	24	4	1	2	1				2		2				8
Influenza	35	7	3	1	2	7	2	3	5	13	7	9	17	17	8	15	23	47	59	55	83	6
Smallpox	4	1			1	1	1			1		4	1	1	1	2		1				
Other epidemic diseases							1	2	1							1		1				
Malaria	41	22	25	11	10	22	16	20	12	15	16	10	11	12	11	21	11	19	32	16	14	7
Tuberculosis, lungs	43	13	9	3	3	31	59	318	543	491	338	289	252	199	158	155	131	113	92	50	29	45
Other forms tuberculosis	112	61	33	20	9	38	31	114	147	136	119	99	94	70	60	54	54	46	32	28	7	17
Cancer	5	1	2	2		2	3	5	4	17	24	47	48	86	121	124	137	142	112	89	57	18
Rheumatism	4		1	2	2	11	17	16	13	7	6	11	9	6	14	20	19	32	25	22	14	5
Diabetes	1			2	2	1	4	8	5	1	2	7	2	7	3	16	20	10	9	4	5	2
Other general diseases	49	5	5	4	7	15	18	25	30	33	27	24	19	19	22	26	22	17	27	15	11	10
Simple meningitis	171	58	26	19	11	38	13	16	14	7	13	13	9	10	5	4	4	4	5	2		5
Cerebro spinal mening'ts	116	54	27	19	18	42	22	23	17	9	15	6	5	4	4	1	3	3	1		2	
Cerebral cong. and hem.	92	31	16	10	7	14	9	16	18	9	17	30	36	50	60	74	84	124	129	115	100	15
Paralysis	7	2	5	3		11	7	15	5	7	17	28	37	43	43	71	98	157	192	183	162	16
Convulsions, infants	316	36	16	5	3																	5
Other nervous diseases	104	34	24	14	13	55	33	48	35	33	53	61	64	62	57	67	62	54	65	61	44	28
Organic heart disease	72	3	1	2	4	18	26	25	25	40	44	46	60	85	117	147	155	240	261	184	170	34
Other circulatory dis	27		1	1	2	9	12	16	20	18	20	13	18	18	26	31	44	54	56	43	24	17
Bronchitis	149	44	15	4	3	11	2	4	3	6	8	5	3	5	6	10	19	35	57	55	73	5

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TABLE 1—Continued.

Showing Deaths from all Causes by Months and Ages, Year Ending September 30, 1900. Bertillon Classification.

	Under 5.					5 to 10.	10 to 15.	15 to 20.	20 to 25.	25 to 30.	30 to 35.	35 to 40.	40 to 45.	45 to 50.	50 to 55.	55 to 60.	60 to 65.	65 to 70	70 to 75.	75 to 80.	80 and Over.	Unknown.
	0.	1.	2.	3.	4.																	
Broncho pneumonia	81	34	18	7	6	13	4	2	.....	2	1	2	3	2	2	2	8	11	9	8	10	3
Pneumonia	461	172	95	46	34	69	60	83	95	90	90	102	86	105	114	105	173	151	154	154	185	32
Pleurisy	1	1	.....	.....	.....	1	.....	3	1	1	4	1	2	.....	4	.....	1	2	2	3	2	2
Other respiratory dis	72	24	22	14	10	35	17	9	10	10	13	11	10	16	13	25	23	28	32	34	24	11
Stomach diseases	109	31	12	4	2	20	4	4	19	21	20	24	19	20	27	41	55	66	63	53	45	17
Infantile diarrhœa	1,276	504	140	39	30	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Diarrhœa and enteritis	5	5	.....	.....	1	12	1	6	6	3	4	10	10	14	17	28	38	50	41	43	51	.....
Dysentery	24	25	12	5	3	13	.....	2	5	6	5	9	12	7	14	15	25	27	41	26	43	4
Liver diseases	33	5	.....	2	1	6	1	6	13	13	15	29	27	32	34	65	62	64	57	35	26	4
Peritonitis	17	6	5	4	2	11	23	34	31	34	25	28	17	23	17	7	4	14	17	2	4	.....
Iliac abscess	1	.....	2	.....	1	10	20	11	19	16	7	5	4	4	5	7	5	1	4	3	.....	.....
Other digestive diseases	138	44	15	11	12	19	20	14	13	13	18	13	20	15	28	36	27	33	37	25	23	5
Bright's disease	36	5	11	8	5	23	18	39	46	41	56	55	56	66	87	101	131	168	160	128	118	10
Other genito-urin'y dis	11	.....	.....	.....	1	2	4	1	6	8	9	5	9	8	9	11	24	37	46	36	45	2
Diseases fem. gent. org	.....	.....	.....	.....	.....	.....	3	46	96	90	64	53	39	9	8	9	7	4	4	2	.....	11
Skin diseases	53	7	1	.....	5	4	1	6	8	10	7	5	11	6	12	5	14	21	30	19	31	5
Diseases locomotor sys	12	4	7	1	.....	2	.....	1	4	4	.....	1	.....	1	1	1	.....	1	3	1	.....	.....
Malformations	242	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Diseases of infancy	510	10	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Diseases of old age	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	34	123	874	.....
Suicide	.....	.....	.....	.....	.....	.....	2	16	23	17	23	10	12	13	22	9	12	12	8	8	3	6
Accidents	63	32	47	21	16	70	77	128	120	83	95	79	72	63	63	56	41	38	33	43	46	48
Homicide	.....	.....	.....	.....	.....	1	.....	3	6	2	3	4	.....	3	2	1	.....	1	.....	.....	.....	1
Causes ill defined	712	43	14	5	6	19	12	31	.....	24	29	39	26	50	50	78	63	1 2	201	193	90	26
Premature birth	837	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

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TABLE 2.

Deaths in Indiana, by Months, Counties and Sex. (Stillbirths Included.)

STATE AND COUNTIES.	SEX.	YEAR 1899-1900.	MONTHS—YEAR ENDING SEPTEMBER 30, 1900.											
		Deaths.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.
State	Total	35,516	3 045	2,557	2,692	2,966	2,858	3,363	3,174	2,740	2,351	3,099	3,428	3,243
	Males	18,290	1,524	1,295	1,393	1,489	1,510	1,733	1,657	1,382	1,238	1,613	1,806	1,650
	Females	17,226	1,521	1,262	1,299	1,477	1,348	1,630	1,517	1,358	1,113	1,486	1,622	1,593
Adams	Total	309	28	22	17	36	21	20	37	19	35	16	29	29
	Males	154	11	12	11	22	9	14	16	10	15	8	15	11
	Females	155	17	10	6	14	12	6	21	9	20	8	14	18
Allen	Total	949	61	63	66	87	74	84	80	72	72	104	84	102
	Males	506	36	35	37	40	43	41	40	40	32	60	45	57
	Females	443	25	28	29	47	31	43	40	32	40	44	39	45
Bartholomew	Total	424	34	28	28	44	42	34	39	30	29	28	55	33
	Males	217	17	15	14	23	23	15	21	15	18	17	28	11
	Females	207	17	13	14	21	19	19	18	15	11	11	27	22
Benton	Total	115	10	4	11	12	12	10	10	6	13	10	10	7
	Males	59	3	1	5	8	8	6	4	1	3	6	8	6
	Females	56	7	3	6	4	4	4	6	5	10	4	2	1
Blackford	Total	203	22	12	18	16	22	12	13	22	11	21	14	20
	Males	107	10	6	10	10	13	6	8	11	5	8	9	11
	Females	96	12	6	8	6	9	6	5	11	6	13	5	9
Boone	Total	357	28	25	21	29	27	34	29	28	18	33	46	39
	Males	194	14	14	14	20	13	19	17	17	7	21	21	17
	Females	163	14	11	7	9	14	15	12	11	11	12	25	22

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TABLE 2—Continued.

STATE AND COUNTIES.	Sex.	Year 1899-1900. Deaths.	Months—Year Ending September 30, 1900. Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.
Brown	Total	149	2	10	18	21	12	5	17	13	7	7	20	11
	Males	73	2	6	9	14	9	2	6	5	4	.....	13	3
	Females	76	6	4	9	7	3	3	11	8	3	7	7	8
Carroll	Total	250	27	9	17	21	14	27	15	19	19	26	27	29
	Males	129	12	4	12	9	8	14	7	9	10	13	16	15
	Females	121	15	5	5	12	6	13	8	10	9	13	11	14
Cass	Total	511	48	30	44	28	50	39	34	41	34	49	48	66
	Males	270	31	15	19	17	23	19	19	21	22	25	17	42
	Females	241	17	15	25	11	27	20	15	20	12	24	31	24
Clark	Total	477	35	40	40	43	46	46	43	38	28	43	44	31
	Males	246	13	21	17	24	24	23	23	24	11	20	28	18
	Females	231	22	19	23	19	22	23	20	14	17	23	16	13
Clay	Total	355	35	22	31	33	29	27	21	32	23	28	41	33
	Males	188	19	8	17	21	14	18	10	21	15	11	20	14
	Females	167	16	14	14	12	15	9	11	11	8	17	21	19
Clinton	Total	435	44	28	46	42	37	46	47	27	21	20	43	34
	Males	237	17	15	26	22	28	23	21	15	10	14	22	24
	Females	198	27	13	20	20	9	23	26	12	11	6	21	10
Crawford	Total	201	21	22	11	15	19	24	18	11	10	15	13	22
	Males	89	12	10	5	4	10	11	7	5	2	7	8	8
	Females	112	9	12	6	11	9	13	11	6	8	8	5	14
Daviess	Total	424	45	31	22	36	32	45	34	30	22	31	61	35
	Males	224	21	18	9	16	13	25	24	18	17	13	31	19
	Females	200	24	13	13	20	19	20	10	12	5	18	30	16
Dearborn	Total	303	33	22	31	22	25	32	23	25	18	21	23	28
	Males	145	17	11	14	11	10	18	11	15	10	7	9	12
	Females	158	16	11	17	11	15	14	12	10	8	14	14	16
Decatur	Total	269	25	27	21	21	27	20	31	22	16	13	27	19
	Males	130	14	12	9	7	12	11	17	10	13	7	11	7
	Females	139	11	15	12	14	15	9	14	12	3	6	16	12

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Dekalb	Total	322	28	24	31	21	36	24	32	26	19	22	27	32
	Males	178	13	18	22	12	18	12	21	15	9	14	8	16
	Females	144	15	6	9	9	18	12	11	11	10	8	19	16
Delaware	Total	689	54	44	48	53	59	70	62	66	40	68	59	66
	Males	361	25	19	28	24	33	43	35	31	19	36	32	36
	Females	328	29	25	20	29	26	27	27	35	21	32	27	30
Dubois	Total	267	31	17	21	33	19	15	27	17	12	29	19	27
	Males	137	15	9	8	14	12	6	13	8	5	17	16	14
	Females	130	16	8	13	19	7	9	14	9	7	12	3	13
Elkhart	Total	551	44	34	33	33	49	53	60	58	47	31	48	61
	Males	265	15	16	15	14	28	20	32	26	27	12	29	31
	Females	286	29	18	18	19	21	33	28	32	20	19	19	30
Fayette	Total	188	15	16	14	15	16	14	11	25	16	16	12	18
	Males	75	8	5	7	7	4	7	6	6	9	8	4	4
	Females	113	7	11	7	8	12	7	5	19	7	8	8	14
Floyd	Total	473	40	38	43	27	40	57	37	41	40	46	36	28
	Males	227	24	21	23	11	18	27	19	20	15	21	17	11
	Females	246	16	17	20	16	22	30	18	21	25	25	19	17
Fountain	Total	266	20	23	19	21	16	38	29	26	20	11	16	27
	Males	134	13	11	8	10	10	19	11	14	12	7	9	10
	Females	132	7	12	11	11	6	19	18	12	8	4	7	17
Franklin	Total	247	16	22	21	19	14	27	22	17	16	21	35	17
	Males	127	6	11	16	11	8	11	12	7	8	13	16	8
	Females	120	10	11	5	8	6	16	10	10	8	8	19	9
Fulton	Total	215	16	15	23	16	12	25	20	21	16	13	14	24
	Males	115	9	8	13	5	9	11	13	13	10	8	4	12
	Females	100	7	7	10	11	3	14	7	8	6	5	10	12
Gibson	Total	475	46	51	35	42	40	32	34	32	31	58	37	37
	Males	222	22	23	18	21	14	15	17	18	14	30	18	12
	Females	253	24	28	17	21	26	17	17	14	17	28	19	25
Grant	Total	828	66	72	71	70	80	58	66	59	49	80	89	68
	Males	475	34	40	39	47	46	32	47	30	31	45	56	28
	Females	353	32	32	32	23	34	26	19	29	18	35	33	40
Greene	Total	391	49	19	27	22	38	28	28	19	28	40	47	46
	Males	201	22	9	17	13	21	16	15	7	11	21	24	25
	Females	190	27	10	10	9	17	12	13	12	17	19	23	21
Hamilton	Total	453	34	24	44	40	38	44	38	36	26	43	56	30
	Males	240	18	14	22	24	18	23	17	22	14	20	32	16
	Females	213	16	10	22	16	20	21	21	14	12	23	24	14

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TABLE 2—Continued.

STATE AND COUNTIES.	SEX.	YEAR 1899-1900.	MONTHS—YEAR ENDING SEPTEMBER 30, 1900.											
		Deaths.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.
Hancock	Total	270	25	20	22	27	14	33	14	27	19	24	28	17
	Males	145	17	15	12	14	8	15	8	11	9	13	15	8
	Females	125	8	5	10	13	6	18	6	16	10	11	13	9
Harrison	Total	300	24	15	27	31	25	26	23	22	16	31	33	27
	Males	171	14	6	14	18	17	15	12	12	11	21	18	13
	Females	129	10	9	13	13	8	11	11	10	5	10	15	14
Hendricks	Total	266	22	17	20	17	19	25	21	19	24	26	35	21
	Males	123	10	5	8	9	11	10	13	9	6	12	18	12
	Females	143	12	12	12	8	8	15	8	10	18	14	17	9
Henry	Total	424	32	24	27	39	46	57	32	30	31	30	32	44
	Males	214	16	14	14	17	27	25	18	16	20	13	15	19
	Females	210	16	10	13	22	19	32	14	14	11	17	17	25
Howard	Total	410	51	24	27	35	32	34	36	36	27	32	48	28
	Males	190	24	11	14	11	14	13	20	12	13	16	22	20
	Females	220	27	13	13	24	18	21	16	24	14	16	26	8
Huntington	Total	326	29	32	26	26	33	37	19	20	18	23	34	29
	Males	160	11	13	16	10	21	23	7	8	12	12	16	11
	Females	166	18	19	10	16	12	14	12	12	6	11	18	18
Jackson	Total	415	42	24	21	41	33	44	24	34	27	40	39	46
	Males	194	21	6	10	11	10	24	13	18	16	20	22	23
	Females	221	21	18	11	30	23	20	11	16	11	20	17	23
Jasper	Total	189	15	16	14	22	11	23	14	10	10	15	16	23
	Males	95	7	10	9	13	2	8	8	3	4	9	10	12
	Females	94	8	6	5	9	9	15	6	7	6	6	6	11
Jay	Total	357	26	23	22	31	17	34	45	27	17	33	42	40
	Males	188	12	13	12	16	9	20	26	12	11	15	20	22
	Females	169	14	10	10	15	8	14	19	15	6	18	22	18
Jefferson	Total	374	30	21	25	25	34	41	50	30	26	23	39	30
	Males	170	17	9	10	11	14	18	17	17	12	12	22	11
	Females	204	13	12	15	14	20	23	33	13	14	11	17	19

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Jennings	Total	255	28	24	15	20	20	29	21	19	15	19	21	24
	Males	130	12	14	4	10	10	12	13	11	10	11	13	10
	Females	125	16	10	11	10	10	17	8	8	5	8	8	14
Johnson	Total	279	28	14	31	14	20	27	22	27	14	32	33	17
	Males	132	14	7	13	5	9	12	11	18	8	14	13	9
	Females	147	14	7	18	9	11	15	11	9	6	18	20	8
Knox	Total	577	53	50	48	50	61	42	44	37	35	52	57	48
	Males	288	29	24	22	22	28	25	25	19	20	25	26	23
	Females	289	24	26	26	28	33	17	19	18	15	27	31	25
Kosciusko	Total	316	33	36	16	18	23	30	26	26	19	17	33	39
	Males	165	16	16	8	8	17	17	16	13	11	11	13	19
	Females	151	17	20	8	10	6	13	10	13	8	6	20	20
Lagrange	Total	195	18	22	16	8	14	30	25	16	14	7	16	9
	Males	104	12	10	8	5	5	18	13	8	8	3	11	3
	Females	91	6	12	8	3	9	12	12	8	6	4	5	6
Lake	Total	395	33	34	28	50	42	36	30	29	29	27	29	28
	Males	229	22	15	18	22	33	19	17	15	19	19	15	15
	Females	166	11	19	10	28	9	17	13	14	10	8	14	13
Laporte	Total	450	39	34	36	41	32	39	42	31	35	28	45	48
	Males	246	27	24	23	17	21	22	21	15	14	13	21	28
	Females	204	12	10	13	24	11	17	21	16	21	15	24	20
Lawrence	Total	386	37	29	24	35	28	47	36	24	21	37	37	31
	Males	185	19	14	9	14	16	23	24	9	7	18	16	16
	Females	201	18	15	15	21	12	24	12	15	14	19	21	15
Madison	Total	1,046	87	62	72	98	83	91	100	85	69	106	104	89
	Males	555	53	30	30	58	46	52	47	32	36	59	62	50
	Females	491	34	32	42	40	37	39	53	53	33	47	42	39
Marion	Total	3,268	230	208	268	270	222	295	317	276	262	390	270	260
	Males	1,703	110	105	151	134	114	151	172	136	139	207	145	139
	Females	1,565	120	103	117	136	108	144	145	140	123	183	125	121
Marshall	Total	311	22	17	24	28	28	27	34	34	15	21	26	35
	Males	153	7	8	11	14	12	13	15	21	10	11	9	22
	Females	158	15	9	13	14	16	14	19	13	5	10	17	13
Martin	Total	225	23	12	18	15	16	24	19	20	15	19	18	26
	Males	113	7	6	12	9	6	14	8	11	12	8	5	15
	Females	112	16	6	6	6	10	10	11	9	3	11	13	11
Miami	Total	373	28	28	29	32	27	37	41	22	24	40	39	26
	Males	184	13	14	15	15	13	15	18	11	9	28	16	17
	Females	189	15	14	14	17	14	22	23	11	15	12	23	9

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TABLE 2—Continued.

STATE AND COUNTIES.	Sex.	Year 1899-1900. Deaths.	Months—Year Ending September 30, 1900. Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.
Monroe	Total	328	19	32	27	35	20	37	30	16	16	32	35	29
	Males	149	10	9	17	16	11	16	12	7	8	18	14	11
	Females	179	9	23	10	19	9	21	18	9	8	14	21	18
Montgomery	Total	409	37	35	31	41	38	44	37	28	18	37	29	34
	Males	194	22	15	11	21	20	21	18	13	9	17	15	12
	Females	215	15	20	20	20	18	23	19	15	9	20	14	22
Morgan	Total	319	24	20	20	35	27	32	24	21	25	25	39	27
	Males	163	16	9	8	21	17	19	10	8	11	10	22	12
	Females	156	8	11	12	14	10	13	14	13	14	15	17	15
Newton	Total	100	6	5	4	5	5	12	14	13	11	8	5	12
	Males	60	3	3	2	4	4	6	8	7	7	5	3	8
	Females	40	3	2	2	1	1	6	6	6	4	3	2	4
Noble	Total	272	23	13	17	22	21	26	26	25	19	25	28	27
	Males	135	12	7	6	12	12	13	18	15	9	8	14	9
	Females	137	11	6	11	10	9	13	8	10	10	17	14	18
Ohio	Total	70	6	4	5	4	6	7	7	9	3	5	10	4
	Males	35	4	3	2	2	2	5	3	4	1	3	4	2
	Females	35	2	1	3	2	4	2	4	5	2	2	6	2
Orange	Total	238	16	23	20	14	16	35	23	17	9	23	23	19
	Males	143	11	13	11	8	6	29	12	9	5	9	19	11
	Females	95	5	10	9	6	10	6	11	8	4	14	4	8
Owen	Total	209	25	16	11	21	12	14	16	17	11	15	22	29
	Males	111	15	11	7	8	9	10	5	13	5	8	9	11
	Females	98	10	5	4	13	3	4	11	4	6	7	13	18
Parke	Total	272	27	17	26	21	28	17	24	22	11	19	36	24
	Males	136	11	7	14	9	19	8	8	11	6	10	20	13
	Females	136	16	10	12	12	9	9	16	11	5	9	16	11
Perry	Total	239	17	17	13	22	22	23	23	23	12	21	27	19
	Males	135	9	9	8	12	9	12	13	15	7	11	17	13
	Females	104	8	8	5	10	13	11	10	8	5	10	10	6

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Pike	Total	383	42	37	32	32	26	42	36	22	18	25	41	03
	Males	207	22	14	18	19	13	26	21	12	8	16	21	17
	Females	176	20	23	14	13	13	16	15	10	10	9	20	13
Porter	Total	245	18	19	17	22	22	31	30	20	16	15	20	15
	Males	120	10	9	6	10	15	15	17	8	7	5	9	9
	Females	125	8	10	11	12	7	16	13	12	9	10	11	6
Posey	Total	391	37	24	20	48	35	31	42	23	28	29	31	41
	Males	213	15	11	12	30	22	15	20	11	17	20	18	23
	Females	178	22	13	8	18	13	16	22	12	11	9	13	22
Pulaski	Total	154	21	16	13	12	12	12	11	9	8	8	10	22
	Males	79	7	13	6	6	9	4	6	6	4	4	2	12
	Females	75	14	3	7	6	3	8	5	3	4	4	8	10
Putnam	Total	268	23	14	18	20	19	33	32	15	19	23	19	33
	Males	141	12	8	13	8	12	15	14	8	9	11	10	21
	Females	127	11	6	5	12	7	18	18	7	10	12	9	12
Randolph	Total	360	31	18	38	25	27	40	26	28	23	40	35	29
	Males	193	20	9	20	12	14	28	13	17	9	17	19	15
	Females	167	11	9	18	13	13	12	13	11	14	23	16	14
Ripley	Total	314	19	22	30	39	27	26	21	25	15	22	31	37
	Males	151	15	10	12	18	14	12	11	9	4	9	21	16
	Females	163	4	12	18	21	13	14	10	16	11	13	10	21
Rush	Total	293	19	19	24	26	23	24	24	19	25	22	36	32
	Males	142	10	10	12	14	10	7	12	8	14	8	21	16
	Females	151	9	9	12	12	13	17	12	11	11	14	15	16
Scott	Total	146	15	8	12	8	17	14	11	6	5	13	17	20
	Males	71	4	5	5	3	7	7	10	2	4	6	9	9
	Females	75	11	3	7	5	10	7	1	4	1	7	8	11
Shelby	Total	363	30	21	28	34	29	33	35	21	32	37	37	26
	Males	179	9	11	17	17	13	15	20	9	14	18	19	17
	Females	184	21	10	11	17	16	18	15	12	18	19	18	9
Spencer	Total	357	27	26	21	28	27	32	32	20	35	37	28	44
	Males	191	10	17	12	13	15	16	19	11	17	21	16	24
	Females	166	17	9	9	15	12	16	13	9	18	16	12	20
Starke	Total	148	18	14	8	10	11	16	4	6	11	3	19	28
	Males	77	7	9	5	5	3	8	1	4	5	2	13	15
	Females	71	11	5	3	5	8	8	3	2	6	1	6	13
Steuben	Total	174	12	17	14	8	20	13	18	10	10	14	19	19
	Males	84	5	8	6	5	11	7	6	6	3	7	9	11
	Females	90	7	9	8	3	9	6	12	4	7	7	10	8

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TABLE 2—Continued.

STATE AND COUNTIES.	Sex.	Year 1899-1900.	Months—Year Ending September 30, 1900.											
		Deaths.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.
Monroe	Total	328	19	32	27	35	20	37	30	16	16	32	35	29
	Males	149	10	9	17	16	11	16	12	7	8	18	14	11
	Females	179	9	23	10	19	9	21	18	9	8	14	21	18
Montgomery	Total	409	37	35	31	41	38	44	37	28	18	37	29	34
	Males	194	22	15	11	21	20	21	18	13	9	17	15	12
	Females	215	15	20	20	20	18	23	19	15	9	20	14	22
Morgan	Total	319	24	20	20	35	27	32	24	21	25	25	39	27
	Males	163	16	9	8	21	17	19	10	8	11	10	22	12
	Females	156	8	11	12	14	10	13	14	13	14	15	17	15
Newton	Total	100	6	5	4	5	5	12	14	13	11	8	5	12
	Males	60	3	3	2	4	4	6	8	7	7	5	3	8
	Females	40	3	2	2	1	1	6	6	6	4	3	2	4
Noble	Total	272	23	13	17	22	21	26	26	25	19	25	28	27
	Males	135	12	7	6	12	12	13	18	15	9	8	14	9
	Females	137	11	6	11	10	9	13	8	10	10	17	14	18
Ohio	Total	70	6	4	5	4	6	7	7	9	3	5	10	4
	Males	35	4	3	2	2	2	5	3	4	1	3	4	2
	Females	35	2	1	3	2	4	2	4	5	2	2	6	2
Orange	Total	238	16	23	20	14	16	35	23	17	9	23	23	19
	Males	143	11	13	11	8	6	29	12	9	5	9	19	11
	Females	95	5	10	9	6	10	6	11	8	4	14	4	8
Owen	Total	209	25	16	11	21	12	14	16	17	11	15	22	29
	Males	111	15	11	7	8	9	10	5	13	5	8	9	11
	Females	98	10	5	4	13	3	4	11	4	6	7	13	18
Parke	Total	272	27	17	26	21	28	17	24	22	11	19	36	24
	Males	136	11	7	14	9	19	8	8	11	6	10	20	13
	Females	136	16	10	12	12	9	9	16	11	5	9	16	11
Perry	Total	239	17	17	13	22	22	23	23	23	12	21	27	19
	Males	135	9	9	8	12	9	12	13	15	7	11	17	13
	Females	104	8	8	5	10	13	11	10	8	5	10	10	6

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Pike	Total	383	42	37	32	32	26	42	36	22	18	25	41	03
	Males	207	22	14	18	19	13	26	21	12	8	16	21	17
	Females	176	20	23	14	13	13	16	15	10	10	9	20	13
Porter	Total	245	18	19	17	22	22	31	30	20	16	15	20	15
	Males	120	10	9	6	10	15	15	17	8	7	5	9	9
	Females	125	8	10	11	12	7	16	13	12	9	10	11	6
Posey	Total	391	37	24	20	48	35	31	42	23	28	29	31	41
	Males	213	15	11	12	30	22	15	20	11	17	20	18	23
	Females	178	22	13	8	18	13	16	22	12	11	9	13	22
Pulaski	Total	154	21	16	13	12	12	12	11	9	8	8	10	22
	Males	79	7	13	6	6	9	4	6	6	4	4	2	12
	Females	75	14	3	7	6	3	8	5	3	4	4	8	10
Putnam	Total	268	23	14	18	20	19	33	32	15	19	23	19	33
	Males	141	12	8	13	8	12	15	14	8	9	11	10	21
	Females	127	11	6	5	12	7	18	18	7	10	12	9	12
Randolph	Total	360	31	18	38	25	27	40	26	28	23	40	35	29
	Males	193	20	9	20	12	14	28	13	17	9	17	19	15
	Females	167	11	9	18	13	13	12	13	11	14	23	16	14
Ripley	Total	314	19	22	30	39	27	26	21	25	15	22	31	37
	Males	151	15	10	12	18	14	12	11	9	4	9	21	16
	Females	163	4	12	18	21	13	14	10	16	11	13	10	21
Rush	Total	293	19	19	24	26	23	24	24	19	25	22	36	32
	Males	142	10	10	12	14	10	7	12	8	14	8	21	16
	Females	151	9	9	12	12	13	17	12	11	11	14	15	16
Scott	Total	146	15	8	12	8	17	14	11	6	5	13	17	20
	Males	71	4	5	5	3	7	7	10	2	4	6	9	9
	Females	75	11	3	7	5	10	7	1	4	1	7	8	11
Shelby	Total	363	30	21	28	34	29	33	35	21	32	37	37	26
	Males	179	9	11	17	17	13	15	20	9	14	18	19	17
	Females	184	21	10	11	17	16	18	15	12	18	19	18	9
Spencer	Total	357	27	26	21	28	27	32	32	20	35	37	28	44
	Males	191	10	17	12	13	15	16	19	11	17	21	16	24
	Females	166	17	9	9	15	12	16	13	9	18	16	12	20
Starke	Total	148	18	14	8	10	11	16	4	6	11	3	19	28
	Males	77	7	9	5	5	3	8	1	4	5	2	13	15
	Females	71	11	5	3	5	8	8	3	2	6	1	6	13
Steuben	Total	174	12	17	14	8	20	13	18	10	10	14	19	19
	Males	84	5	8	6	5	11	7	6	6	3	7	9	11
	Females	90	7	9	8	3	9	6	12	4	7	7	10	8

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TABLE 2—Continued.

STATE AND COUNTIES.	SEX.	YEAR 1899-1900.	MONTHS—YEAR ENDING SEPTEMBER 30, 1900.											
		Deaths.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.
St. Joseph	Total	886	64	67	86	71	63	71	79	67	67	67	92	102
	Males	462	35	38	47	33	28	32	39	32	36	38	47	57
	Females	424	29	29	39	38	35	39	40	25	31	29	45	45
Sullivan	Total	352	39	25	23	21	19	29	32	28	18	38	48	32
	Males	179	16	11	13	11	8	14	15	14	9	21	30	17
	Females	173	23	14	10	10	11	15	17	14	9	17	18	15
Switzerland	Total	176	17	16	10	10	9	25	14	18	12	11	15	19
	Males	83	9	9	4	7	5	7	8	9	7	5	5	8
	Females	93	8	7	6	3	4	18	6	9	5	6	10	11
Tippecanoe	Total	549	56	46	30	41	42	52	54	48	38	47	48	47
	Males	310	31	25	16	26	31	25	33	27	20	23	25	28
	Females	239	25	21	14	15	11	27	21	21	18	24	23	19
Tipton	Total	272	20	18	24	17	24	25	20	21	20	25	27	31
	Males	134	7	7	13	8	9	13	12	7	11	12	19	16
	Females	138	13	11	11	9	15	12	8	14	9	13	8	15
Union	Total	85	5	6	10	10	3	7	10	7	6	8	4	9
	Males	38	1	2	5	3	.....	5	1	6	3	3	2	7
	Females	47	4	4	5	7	3	2	9	1	3	5	2	2
Vanderburgh	Total	1,124	93	91	75	105	88	123	92	84	94	98	105	76
	Males	603	47	49	37	50	49	72	50	44	60	48	58	39
	Females	521	46	42	38	55	39	51	42	40	34	50	47	37
Vermillion	Total	198	24	15	21	16	12	18	15	16	9	18	24	10
	Males	100	12	8	12	8	4	11	11	8	6	8	10	2
	Females	98	12	7	9	8	8	7	4	8	3	10	14	8
Vigo	Total	876	85	69	53	55	79	80	94	70	54	87	87	63
	Males	471	41	35	28	28	44	40	54	32	36	57	46	30
	Females	405	44	34	25	27	35	40	40	38	18	30	41	33
Wabash	Total	326	25	30	28	15	27	31	28	31	21	19	35	36
	Males	166	12	15	12	8	10	18	16	13	9	11	21	21
	Females	160	13	15	16	7	17	13	12	18	12	8	14	15

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Warren	Total	104	6	5	9	3	9	13	10	11	5	9	12	12
	Males	57	3	1	3	2	5	8	3	7	5	3	9	8
	Females	47	3	4	6	1	4	5	7	4	.....	6	3	4
Warrick	Total	437	46	32	23	31	35	41	37	35	36	29	41	51
	Males	221	23	17	11	16	14	27	20	17	19	13	23	21
	Females	216	23	15	12	15	21	14	17	18	17	16	18	30
Washington	Total	271	23	15	26	27	32	22	32	21	8	23	28	14
	Males	129	8	8	9	15	16	13	12	12	4	14	12	6
	Females	142	15	7	17	12	16	9	20	9	4	9	16	8
Wayne	Total	632	52	48	48	56	46	70	62	52	37	45	55	61
	Males	324	30	28	24	27	23	37	25	22	23	24	33	28
	Females	308	22	20	24	29	23	33	37	30	14	21	22	33
Wells	Total	260	24	26	12	17	30	26	21	16	12	21	26	29
	Males	132	7	11	3	11	20	12	11	11	5	11	13	17
	Females	128	17	15	9	6	10	14	10	5	7	10	13	12
White	Total	185	19	8	19	20	12	15	17	14	6	18	19	18
	Males	99	13	5	8	7	9	4	10	8	4	7	12	12
	Females	86	6	3	11	13	3	11	7	6	2	11	7	6
Whitley	Total	228	17	23	18	28	12	23	19	17	10	23	11	27
	Males	111	7	10	11	12	6	10	9	9	3	13	8	13
	Females	117	10	13	7	16	6	13	10	8	7	10	3	14

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TABLE 3.

Deaths in Indiana by Ages, Counties and Sex, During the Year 1899-1900. (Stillbirths Included.)

STATE AND COUNTIES.	Sex.	Total Deaths at All Ages, 1899-1900.	Still Born.	Under 1 Year.	1.	2.	3.	4.	5 to 10.	10 to 15.	15 to 20.	20 to 25.	25 to 30.	30 to 35.	35 to 40.	40 to 45.	45 to 50.	50 to 55.	55 to 60.	60 to 65.	65 to 70.	70 to 75.	75 to 80.	80 and Over.	Unknown.
				Ages in Years.																					
State	Total	35,516	1,456	6,310	1,565	792	447	353	1,049	761	1,377	1,621	1,456	1,326	1,287	1,194	1,204	1,281	1,493	1,627	1,980	2,155	1,877	2,425	480
	Males	18,290	823	3,538	813	416	224	176	521	356	593	733	603	593	606	577	609	693	773	863	1,116	1,183	1,021	1,208	252
	Females	17,226	63	2,772	752	376	223	177	528	405	784	888	853	735	681	617	595	588	720	764	864	972	856	1,217	228
Adams	Total	309	22	70	16	13	6	5	9	4	14	13	14	16	10	6	9	5	5	7	14	13	14	21	3
	Males	154	15	34	11	4	2	3	2	2	6	6	5	8	3	3	4	1	2	5	6	10	6	13	3
	Females	155	7	36	5	9	4	2	7	2	8	7	9	8	7	3	5	4	3	2	8	3	8	8	....
Allen	Total	949	43	177	30	18	15	9	40	29	41	49	35	28	27	32	24	28	41	60	56	62	49	51	5
	Males	506	22	105	13	8	8	4	24	15	21	25	14	11	6	16	16	12	20	37	37	31	31	27	3
	Females	443	21	72	17	10	7	5	16	14	20	24	21	17	21	16	8	16	21	23	19	31	18	24	2
Bartholomew	Total	424	21	85	16	17	6	5	6	4	20	18	21	17	11	16	9	15	14	22	23	26	14	33	5
	Males	217	11	43	10	9	4	2	1	1	11	8	9	6	6	9	3	9	7	13	15	15	8	14	3
	Females	207	10	42	6	8	2	3	5	3	9	10	12	11	5	7	6	6	7	9	8	11	6	19	2
Benton	Total	115	8	14	5	2	1	1	3	2	12	7	3	3	7	....	5	8	5	5	7	4	5	6	2
	Males	59	5	8	2	2	1	1	3	2	5	4	1	2	2	...	2	4	3	2	2	4	2	2	....
	Females	56	3	6	3	....	....	....	....	....	7	3	2	1	5	....	3	4	2	3	5	....	3	4	2
Blackford	Total	203	12	39	8	4	7	3	5	8	13	9	8	13	5	1	8	6	11	6	13	6	10	7	1
	Males	107	7	23	3	4	3	1	3	4	6	8	4	6	1	....	7	1	5	4	7	2	5	2	1
	Females	96	5	16	5	....	4	2	2	4	7	1	4	7	4	1	1	5	6	2	6	4	5	5	....
Boone	Total	357	26	52	23	8	4	4	10	9	11	15	13	6	15	7	13	7	13	25	15	23	26	26	6
	Males	194	20	28	12	5	3	2	4	5	3	8	7	3	7	5	7	4	8	14	9	10	14	13	3
	Females	163	6	24	11	3	1	2	6	4	8	7	6	3	8	2	6	3	5	11	6	13	12	13	3

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Brown	Total	149	4	28	7	2	....	1	8	4	9	6	11	7	7	5	2	3	3	4	11	10	4	10	3
	Males	73	2	18	4	....	....	1	3	1	3	1	7	2	4	2	....	2	1	2	4	5	3	6	2
	Females	76	2	10	3	2	....	....	5	3	6	5	4	5	3	3	2	1	2	2	7	5	1	4	1
Carroll	Total	250	9	42	10	5	3	2	9	5	8	15	6	6	7	11	6	8	17	14	10	24	13	19	1
	Males	129	5	28	5	4	1	....	4	2	1	3	1	4	1	3	2	4	9	7	10	13	11	11	....
	Females	121	4	14	5	1	2	2	5	3	7	12	5	2	6	8	4	4	8	7	....	11	2	8	1
Cass	Total	511	19	76	18	8	6	4	6	10	15	26	20	21	25	22	21	26	21	26	41	30	32	31	7
	Males	270	13	47	6	1	3	1	2	3	5	15	9	12	14	12	11	12	14	16	25	18	17	12	2
	Females	241	6	29	12	7	3	3	4	7	10	11	11	9	11	10	10	14	7	10	16	12	15	19	5
Clark	Total	477	16	76	19	12	6	4	7	10	20	39	28	14	14	11	11	18	22	41	34	22	25	22	6
	Males	246	8	41	8	8	3	1	5	5	11	21	16	6	6	5	5	10	9	17	21	10	16	12	2
	Females	231	8	35	11	4	3	3	2	5	9	18	12	8	8	6	6	8	13	24	13	12	9	10	4
Clay	Total	355	8	83	25	7	6	5	9	8	19	17	10	11	8	12	14	7	18	14	19	24	14	11	6
	Males	188	4	52	6	2	4	2	5	4	10	4	5	5	5	6	6	6	11	7	12	15	8	5	4
	Females	167	4	31	19	5	2	3	4	4	9	13	5	6	3	6	8	1	7	7	7	9	6	6	2
Clinton	Total	435	23	71	19	11	13	4	19	8	23	17	19	12	11	16	11	15	18	11	30	30	23	25	6
	Males	237	13	50	12	7	7	3	9	4	11	7	7	5	5	11	6	10	9	5	15	12	15	12	2
	Females	198	10	21	7	4	6	1	10	4	12	10	12	7	6	5	5	5	9	6	15	18	8	13	4
Crawford	Total	201	5	31	10	11	4	2	6	4	11	7	14	7	10	7	2	4	14	9	7	9	10	14	3
	Males	89	3	12	4	3	3	2	2	....	8	1	4	1	5	1	1	3	6	6	5	5	5	8	1
	Females	112	2	19	6	8	1	....	4	4	3	6	10	6	5	6	1	1	8	3	2	4	5	6	2
Daviess	Total	424	21	92	25	12	5	5	15	14	18	23	19	14	17	12	10	13	17	14	18	12	17	29	2
	Males	224	11	52	16	5	1	2	9	4	9	13	7	7	9	6	4	9	11	6	12	8	7	14	2
	Females	200	10	40	9	7	4	3	6	10	9	10	12	7	8	6	6	4	6	8	6	4	10	15	....
Dearborn	Total	303	7	43	9	3	2	1	9	9	8	17	8	11	7	11	5	9	9	28	27	25	21	25	9
	Males	145	4	17	4	1	1	....	2	2	2	10	5	9	3	6	4	3	5	16	10	15	10	13	3
	Females	158	3	26	5	2	1	1	7	7	6	7	3	2	4	5	1	6	4	12	17	10	11	12	6
Decatur	Total	269	9	38	13	2	5	....	5	8	8	13	12	4	2	7	14	11	16	10	16	18	25	29	4
	Males	130	6	21	8	1	3	....	2	4	4	4	5	3	1	2	7	3	6	2	10	12	14	10	2
	Females	139	3	17	5	1	2	....	3	4	4	9	7	1	1	5	7	8	10	8	6	6	11	19	2
Dekalb	Total	322	5	46	11	3	3	2	7	3	16	13	12	19	16	16	12	12	13	18	23	14	24	32	2
	Males	178	4	22	9	3	2	2	3	2	12	7	3	4	6	8	8	8	8	8	16	10	9	22	2
	Females	144	1	24	2	....	1	....	4	1	4	6	9	15	10	8	4	4	5	10	7	4	15	10	....
Delaware	Total	689	36	165	41	18	6	7	16	13	31	27	38	30	24	22	22	18	21	16	31	30	27	39	11
	Males	361	23	97	20	10	3	5	10	6	11	14	11	17	10	12	11	10	10	13	21	15	12	15	5
	Females	328	13	68	21	8	3	2	6	7	20	13	27	13	14	10	11	8	11	3	10	15	15	24	6
Dubois	Total	267	10	53	15	5	3	6	10	7	10	14	14	8	15	11	11	3	7	8	8	18	12	13	6
	Males	137	7	36	8	3	2	3	6	3	7	7	6	1	7	6	5	1	2	3	2	9	5	6	2
	Females	130	3	17	7	2	1	3	4	4	3	7	8	7	8	5	6	2	5	5	6	9	7	7	4

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TABLE 3—Continued.

STATE AND COUNTIES.	Sex.	Total Deaths at All Ages, 1899-1900.	Still Born.	Ages in Years. Under 1 Year.	1.	2.	3.	4.	5 to 10.	10 to 15.	15 to 20.	20 to 25.	25 to 30.	30 to 35.	35 to 40.	40 to 45.	45 to 50.	50 to 55.	55 to 60.	60 to 65.	65 to 70.	70 to 75.	75 to 80.	80 and Over.	Unknown.
Elkhart	Total	551	16	80	19	10	5	4	15	10	13	23	24	24	19	20	15	25	33	20	39	44	41	48	4
	Males	265	8	42	10	5	3	2	9	5	6	6	8	9	6	8	6	12	18	14	19	20	21	27	1
	Females	286	8	38	9	5	2	2	6	5	7	17	16	15	13	12	9	13	15	6	20	24	20	21	3
Fayette	Total	188	3	25	7	5	2	1	6	5	7	5	8	5	10	4	9	7	6	11	10	12	16	20	4
	Males	75	1	13	3	1	....	1	3	3	2	4	2	....	6	2	3	3	2	5	3	6	6	5	1
	Females	113	2	12	4	4	2	....	3	2	5	1	6	5	4	2	6	4	4	6	7	6	10	15	3
Floyd	Total	473	23	59	13	11	3	8	11	10	22	27	22	17	24	18	13	15	19	25	29	33	34	32	5
	Males	227	12	36	5	7	1	6	4	4	11	8	11	7	8	4	6	6	13	11	16	20	17	11	3
	Females	246	11	23	8	4	2	2	7	6	11	19	11	10	16	14	7	9	6	14	13	13	17	21	2
Fountain	Total	266	15	42	5	5	2	1	5	6	5	6	17	14	5	9	13	8	18	16	11	19	18	20	6
	Males	134	11	27	4	2	1	1	2	....	3	3	3	5	2	2	7	5	6	9	6	10	10	13	2
	Females	132	4	15	1	3	1	....	3	6	2	3	14	9	3	7	6	3	12	7	5	9	8	7	4
Franklin	Total	247	8	47	4	1	....	4	....	2	8	12	10	6	9	6	8	5	8	7	18	20	25	36	3
	Males	127	5	25	3	1	....	2	....	....	5	4	4	4	3	2	1	1	6	3	7	13	14	23	1
	Females	120	3	22	1	....	....	2	....	2	3	8	6	2	6	4	7	4	2	4	11	7	11	13	2
Fulton	Total	215	2	40	12	6	3	1	4	6	7	11	6	10	7	3	6	10	8	15	16	18	17	6	1
	Males	115	1	20	7	3	....	....	1	3	3	5	2	3	4	2	1	8	5	8	13	10	10	5	1
	Females	100	1	20	5	3	3	1	3	3	4	6	4	7	3	1	5	2	3	7	3	8	7	1	....
Gibson	Total	475	33	98	21	11	7	5	18	10	25	19	22	16	12	18	16	17	21	19	22	27	17	13	7
	Males	222	14	48	8	5	3	1	11	7	8	9	10	6	8	10	7	7	8	13	10	16	7	4	2
	Females	253	19	50	13	6	4	4	7	3	17	10	12	10	5	8	9	10	13	6	12	11	10	9	5
Grant	Total	828	19	155	45	16	8	8	27	20	34	34	31	33	25	24	32	32	48	37	50	50	35	55	10
	Males	475	8	80	24	10	4	7	13	7	13	18	14	11	13	14	19	19	38	29	35	35	24	34	6
	Females	353	11	75	21	6	4	1	14	13	21	16	17	22	12	10	13	13	10	8	15	15	11	21	4
Greene	Total	391	19	78	18	9	7	2	14	5	19	27	15	10	13	8	11	17	13	17	20	24	12	22	11
	Males	201	8	44	15	5	4	....	8	4	9	10	7	5	6	2	5	9	7	10	12	14	5	8	4
	Females	190	11	34	3	4	3	2	6	1	10	17	8	5	7	6	6	8	6	7	8	10	7	14	7

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Hamilton	Total	453	15	88	23	7	7	7	16	10	17	28	17	19	10	9	19	10	19	14	28	28	16	37	9
	Males	240	9	51	11	4	4	4	9	4	11	12	5	7	3	3	9	6	11	8	19	13	12	20	5
	Females	213	6	37	12	3	3	3	7	6	6	16	12	12	7	6	10	4	8	6	9	15	4	17	4
Hancock	Total	270	20	46	14	6	6	2	7	8	10	12	6	9	6	6	6	13	3	16	13	17	12	24	8
	Males	145	10	31	10	4	....	1	4	6	3	3	4	2	2	5	2	8	1	4	9	9	5	16	6
	Females	125	10	15	4	2	6	1	3	2	7	9	2	7	4	1	4	5	2	12	4	8	7	8	2
Harrison	Total	300	12	38	14	5	7	1	5	9	12	15	17	10	13	9	12	10	9	16	17	27	15	22	5
	Males	171	8	24	5	2	3	1	3	4	6	10	11	7	6	3	6	9	5	6	14	13	10	12	3
	Females	129	4	14	9	3	4	....	2	5	6	5	6	3	7	6	6	1	4	10	3	14	5	10	2
Hendricks	Total	266	10	50	16	2	1	2	8	4	9	12	7	13	7	9	7	11	8	12	20	26	12	15	5
	Males	123	4	27	10	2	1	....	4	....	3	4	2	7	3	4	3	7	4	3	12	9	5	7	2
	Females	143	6	23	6	....	....	2	4	4	6	8	5	6	4	5	4	4	4	9	8	17	7	8	3
Henry	Total	424	22	68	10	8	9	6	19	9	16	19	12	12	14	13	13	10	23	18	26	17	28	47	5
	Males	214	12	37	5	3	8	2	8	2	8	5	6	3	9	8	5	5	10	10	17	9	18	20	4
	Females	210	10	31	5	5	1	4	11	7	8	14	6	9	5	5	8	5	13	8	9	8	10	27	1
Howard	Total	410	23	55	16	16	6	2	12	6	11	22	21	10	20	9	18	17	19	24	26	23	27	24	3
	Males	190	15	29	6	8	4	1	6	2	3	10	5	1	6	4	9	8	13	11	10	13	11	13	2
	Females	220	8	26	10	8	2	1	6	4	8	12	16	9	14	5	9	9	6	13	16	10	16	11	1
Huntington	Total	326	5	57	19	2	3	4	7	7	15	7	10	14	5	13	10	13	14	14	25	30	16	32	4
	Males	160	4	32	12	....	....	2	5	2	8	3	3	6	....	7	5	6	3	9	11	16	9	16	1
	Females	166	1	25	7	2	3	2	2	5	7	4	7	8	5	6	5	7	11	5	14	14	7	16	3
Jackson	Total	415	25	87	17	14	8	4	13	8	18	20	16	16	11	15	16	15	21	8	16	19	19	25	4
	Males	194	14	43	7	5	2	1	10	3	5	9	7	3	7	7	7	7	9	3	11	7	9	17	1
	Females	221	11	44	10	9	6	3	3	5	13	11	9	13	4	8	9	8	12	5	5	12	10	8	3
Jasper	Total	189	11	49	9	4	1	2	4	2	6	7	6	5	7	4	9	4	6	8	10	11	10	14	....
	Males	95	5	26	6	1	1	2	3	1	3	4	3	2	1	1	4	....	1	5	6	5	9	6	....
	Females	94	6	23	3	3	....	....	1	1	3	3	3	3	6	3	5	4	5	3	4	6	1	8	....
Jay	Total	357	25	87	19	9	4	1	12	10	18	15	20	10	8	12	12	14	7	10	11	12	19	21	1
	Males	188	15	46	5	7	1	1	7	5	7	8	6	6	3	7	5	7	5	7	8	7	12	13	....
	Females	169	10	41	14	2	3	....	5	5	11	7	14	4	5	5	7	7	2	3	3	5	7	8	1
Jefferson	Total	374	18	39	11	3	4	4	11	5	19	19	14	17	16	10	17	12	16	21	21	35	26	32	4
	Males	170	7	19	5	3	....	2	9	3	7	3	6	3	8	4	9	7	8	13	9	18	13	12	2
	Females	204	11	20	6	....	4	2	2	2	12	16	8	14	8	6	8	5	8	8	12	17	13	20	2
Jennings	Total	255	11	39	7	2	1	3	5	9	14	11	9	9	9	16	6	12	10	12	10	16	19	24	1
	Males	130	9	15	3	....	....	2	3	2	7	6	4	5	3	8	2	10	3	5	5	9	14	15	....
	Females	125	2	24	4	2	1	1	2	7	7	5	5	4	6	8	4	2	7	7	5	7	5	9	1
Johnson	Total	279	13	39	14	6	1	1	6	4	10	8	13	7	10	15	5	9	12	18	24	20	18	26	....
	Males	132	7	21	8	3	....	....	2	2	3	3	4	2	4	8	4	5	7	7	17	7	8	10	....
	Females	147	6	18	6	3	1	1	4	2	7	5	9	5	6	7	1	4	5	11	7	13	10	16	....

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TABLE 3—Continued.

STATE AND COUNTIES.	Sex.	Total Deaths at All Ages, 1899-1900.	Still Born.	Ages in Years. Under 1 Year.	1.	2.	3.	4.	5 to 10.	10 to 15.	15 to 20.	20 to 25.	25 to 30.	30 to 35.	35 to 40.	40 to 45.	45 to 50.	50 to 55.	55 to 60.	60 to 65.	65 to 70.	70 to 75.	75 to 80.	80 and Over.	Unknown.
Knox	Total	577	30	105	33	22	7	10	21	18	27	35	30	18	25	16	7	20	23	17	27	29	15	27	15
	Males	288	12	55	19	10	3	3	9	10	14	17	17	13	9	7	5	12	10	11	16	10	7	10	9
	Females	289	18	50	14	12	4	7	12	8	13	18	13	5	16	9	2	8	13	6	11	19	8	17	6
Kosciusko	Total	316	10	44	10	8	3	5	8	9	16	10	10	6	5	8	13	9	13	10	27	27	22	37	6
	Males	165	9	22	7	3	2	4	3	6	8	4	4	2	4	3	9	4	6	2	14	17	13	15	4
	Females	151	1	22	3	5	1	1	5	3	8	6	6	4	1	5	4	5	7	8	13	10	9	22	2
Lagrange	Total	195	6	23	10	3	2	3	6	5	6	5	4	4	4	6	3	7	8	10	16	17	15	27	5
	Males	104	2	14	8	1	....	1	3	3	2	3	1	2	3	4	2	2	3	5	9	11	9	14	2
	Females	91	4	9	2	2	2	2	3	2	4	2	3	2	1	2	1	5	5	5	7	6	6	13	3
Lake	Total	395	12	102	17	13	6	4	18	14	9	10	11	12	17	14	11	15	14	12	18	16	21	13	16
	Males	229	5	52	8	9	3	2	9	5	5	8	6	8	13	9	7	9	9	5	11	10	14	10	12
	Females	166	7	50	9	4	3	2	9	9	4	2	5	4	4	5	4	6	5	7	7	6	7	3	4
Laporte	Total	450	13	81	14	5	2	4	15	9	13	5	10	13	13	21	20	18	19	19	22	42	39	43	10
	Males	246	6	50	5	2	....	3	10	6	5	1	2	5	7	11	14	8	12	13	8	24	26	20	8
	Females	204	7	31	9	3	2	1	5	3	8	4	8	8	6	10	6	10	7	6	14	18	13	23	2
Lawrence	Total	386	10	74	21	11	6	5	14	7	19	20	20	17	13	12	6	12	14	13	23	14	16	25	14
	Males	185	6	38	11	5	4	3	5	2	7	7	4	10	5	5	2	8	6	6	13	7	7	17	7
	Females	201	4	36	10	6	2	2	9	5	12	13	16	7	8	7	4	4	8	7	10	7	9	8	7
Madison	Total	1,046	79	235	71	41	29	13	42	16	41	40	43	37	41	29	32	40	31	33	44	36	25	40	8
	Males	555	49	124	39	27	11	8	22	8	22	17	19	19	23	13	18	23	15	19	25	19	11	17	7
	Females	491	30	111	32	14	18	5	20	8	19	23	24	18	18	16	14	17	16	14	19	17	14	23	1
Marion	Total	3,268	131	591	110	64	37	27	95	55	100	141	147	154	163	159	164	147	164	169	164	170	169	177	30
	Males	1,703	83	362	55	34	24	14	47	32	42	54	67	72	79	82	85	79	81	99	83	89	55	75	10
	Females	1,565	48	229	55	30	13	13	48	23	58	87	80	82	84	77	79	68	83	70	81	81	54	102	20
Marshall	Total	311	4	49	17	4	2	3	7	6	11	19	11	13	10	8	13	9	21	17	26	16	20	24	1
	Males	153	2	33	8	2	1	2	4	2	2	9	3	4	7	4	6	4	6	13	14	9	9	8	1
	Females	158	2	16	9	2	1	1	3	4	9	10	8	9	3	4	7	5	15	4	12	7	11	16	....

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Martin	Total	225	8	44	11	4	5	7	9	8	10	9	10	4	9	7	11	6	7	5	7	11	18	12	3
	Males	113	4	20	5	2	2	3	2	4	3	5	7	2	6	5	5	4	3	3	4	9	8	4	3
	Females	112	4	24	6	2	3	4	7	4	7	4	3	2	3	2	6	2	4	2	3	2	10	8	....
Miami	Total	373	9	59	16	9	4	3	6	10	16	12	15	16	15	14	17	18	15	13	23	23	32	26	2
	Males	184	5	34	6	3	1	1	3	5	5	5	6	6	9	4	9	10	8	9	14	11	18	11	1
	Females	189	4	25	10	6	3	2	3	5	11	7	9	10	6	10	8	8	7	4	9	12	14	15	1
Monroe	Total	328	7	47	18	8	2	2	6	1	19	24	11	8	11	16	14	7	13	18	17	24	22	22	11
	Males	149	3	28	8	3	2	1	5	....	8	10	4	5	4	4	6	4	9	7	9	10	11	5	3
	Females	179	4	19	10	5	....	1	1	1	11	14	7	3	7	12	8	3	4	11	8	14	11	17	8
Montgomery	Total	409	16	61	12	7	2	2	12	8	18	15	20	18	17	11	18	20	17	21	21	25	30	35	3
	Males	194	10	26	7	5	1	1	2	2	4	4	8	5	9	6	10	10	12	8	10	16	18	18	2
	Females	215	6	35	5	2	1	1	10	6	14	11	12	13	8	5	8	10	5	13	11	9	12	17	1
Morgan	Total	319	12	71	9	6	3	1	5	5	10	23	13	15	9	10	7	13	8	19	19	22	14	20	5
	Males	163	7	41	4	3	3	....	3	2	4	3	3	7	6	6	3	8	5	8	14	15	8	9	1
	Females	156	5	30	5	3	....	1	2	3	6	20	10	8	3	4	4	5	3	11	5	7	6	11	4
Newton	Total	100	2	20	3	1	1	....	2	1	1	8	3	3	3	.....	2	4	7	4	4	7	10	11	3
	Males	60	.....	9	2	1	1	....	1	....	1	5	1	2	1	.....	2	2	3	3	3	6	7	7	3
	Females	40	2	11	1	....	....	....	1	1	.....	3	2	1	2	.....	.....	2	4	1	1	1	3	4	....
Noble	Total	272	17	35	11	4	3	....	4	3	13	8	4	14	8	7	8	6	10	12	19	26	17	37	6
	Males	135	12	17	5	2	....	....	2	1	7	3	1	3	3	3	4	3	3	8	11	13	9	21	4
	Females	137	5	18	6	2	3	....	2	2	6	5	3	11	5	4	4	3	7	4	8	13	8	16	2
Ohio	Total	70	.....	8	3	1	....	....	1	1	2	5	2	1	1	5	5	1	3	2	3	6	5	15	....
	Males	35	.....	3	2	1	....	....	1	....	1	2	1	.....	.....	1	3	....	2	2	2	1	3	10	....
	Females	35	.....	5	1	....	....	....	.....	1	1	3	1	1	1	4	2	1	1	.....	1	5	2	5	....
Orange	Total	238	4	33	12	7	5	....	5	6	14	17	11	9	7	9	11	8	6	12	14	18	6	18	6
	Males	143	4	22	9	5	2	....	3	3	4	6	3	5	4	5	10	6	4	4	7	15	1	15	6
	Females	95	.....	11	3	2	3	....	2	3	10	11	8	4	3	4	1	2	2	8	7	3	5	3	....
Owen	Total	209	6	30	9	7	1	1	4	4	11	10	7	11	7	11	5	4	11	8	14	13	11	17	7
	Males	111	3	16	6	4	1	....	3	3	4	4	2	2	4	5	4	2	8	2	10	8	7	9	4
	Females	98	3	14	3	3	....	1	1	1	7	6	5	9	3	6	1	2	3	6	4	5	4	8	3
Parke	Total	272	8	47	18	9	4	5	10	11	4	12	10	9	9	10	7	12	8	20	14	17	14	12	2
	Males	136	6	23	9	3	1	4	7	6	2	7	4	4	5	7	4	7	3	6	8	9	6	4	1
	Females	136	2	24	9	6	3	1	3	5	2	5	6	5	4	3	3	5	5	14	6	8	8	8	1
Perry	Total	239	9	46	12	7	2	6	8	9	13	8	7	8	8	3	5	9	9	13	10	21	11	11	4
	Males	135	4	37	8	3	2	3	4	4	4	6	2	5	4	2	1	4	2	8	10	11	4	4	3
	Females	104	5	9	4	4	....	3	4	5	9	2	5	3	4	1	4	5	7	5	....	10	7	7	1
Pike	Total	383	16	84	24	6	3	4	8	9	12	18	14	20	10	19	18	11	21	18	21	13	18	13	3
	Males	207	11	42	12	5	1	2	5	3	6	6	5	13	5	10	7	9	16	12	10	9	10	7	1
	Females	176	5	42	12	1	2	2	3	6	6	12	9	7	5	9	11	2	5	6	11	4	8	6	2

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TABLE 3—Continued.

STATE AND COUNTIES.	Sex.	Total Deaths at All Ages, 1899-1900.	Still Born.	Under 1 Year.	1.	2.	3.	4.	5 to 10.	10 to 15.	15 to 20.	20 to 25.	25 to 30.	30 to 35.	35 to 40.	40 to 45.	45 to 50.	50 to 55.	55 to 60.	60 to 65.	65 to 70.	70 to 75.	75 to 80.	80 and Over.	Unknown.
				Ages in Years.																					
Porter	Total	245	5	47	5	3	4	2	6	4	15	8	5	3	7	10	4	10	13	12	19	16	17	27	3
	Males	120	2	31	1	3	3	1	2	2	6	3	2	2	2	2	1	6	8	6	10	7	8	11	1
	Females	125	3	16	4	....	1	1	4	2	9	5	3	1	5	8	3	4	5	6	9	9	9	16	2
Posey	Total	391	23	82	28	7	2	5	10	7	9	16	9	26	20	9	13	14	16	12	20	28	12	21	2
	Males	213	10	52	12	2	2	4	5	7	1	8	3	17	10	6	9	7	7	4	12	16	8	10	1
	Females	178	13	30	16	5	....	1	5	....	8	8	6	9	10	3	4	7	9	8	8	12	4	11	1
Pulaski	Total	154	2	32	9	7	1	2	6	4	8	8	3	5	1	4	3	3	4	8	11	12	6	10	5
	Males	79	1	18	4	4	1	1	4	1	6	5	....	2	....	1	....	1	3	4	8	7	1	6	1
	Females	75	1	14	5	3	....	1	2	3	2	3	3	3	1	3	3	2	1	4	3	5	5	4	4
Putnam	Total	268	24	43	11	8	....	1	9	4	10	10	16	9	5	10	4	5	10	14	14	27	14	19	1
	Males	141	13	29	6	4	....	....	4	2	5	5	6	3	2	6	....	3	4	9	5	16	7	11	1
	Females	127	11	14	5	4	....	1	5	2	5	5	10	6	3	4	4	2	6	5	9	11	7	8	....
Randolph	Total	360	8	59	17	6	4	5	8	9	12	16	14	12	7	6	6	10	13	23	27	28	18	48	4
	Males	193	6	34	11	3	3	3	4	4	3	10	7	6	4	1	2	5	9	8	14	16	15	24	1
	Females	167	2	25	6	3	1	2	4	5	9	6	7	6	3	5	4	5	4	15	13	12	3	24	3
Ripley	Total	314	6	46	10	5	7	2	9	7	14	15	10	9	8	11	6	16	7	7	25	29	29	30	6
	Males	151	4	23	4	3	5	....	3	4	4	7	5	6	3	4	3	4	2	4	11	14	18	14	6
	Females	163	2	23	6	2	2	2	6	3	10	8	5	3	5	7	3	12	5	3	14	15	11	16	....
Rush	Total	293	11	40	11	5	3	1	9	6	11	14	12	11	14	10	9	12	5	12	20	21	20	31	5
	Males	142	4	22	6	2	2	....	5	1	4	5	3	6	5	6	4	7	1	6	11	14	8	17	3
	Females	151	7	18	5	3	1	1	4	5	7	9	9	5	9	4	5	5	4	6	9	7	12	14	2
Scott	Total	146	4	18	14	1	3	2	5	4	4	8	7	4	1	4	4	6	9	14	7	8	11	7	1
	Males	71	1	12	9	1	1	....	....	2	2	4	6	2	....	1	3	2	4	6	2	4	5	4	....
	Females	75	3	6	5	....	2	2	5	2	2	4	1	2	1	3	1	4	5	8	5	4	6	3	1
Shelby	Total	363	6	60	11	9	5	4	7	8	12	20	21	14	12	12	11	19	15	19	18	22	23	30	5
	Males	179	2	34	5	6	....	2	4	4	5	9	7	7	6	5	6	8	6	8	10	9	15	17	4
	Females	184	4	26	6	3	5	2	3	4	7	11	14	7	6	7	5	11	9	11	8	13	8	13	1

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Spencer	Total	357	15	53	11	7	4	4	9	10	22	26	18	14	16	15	13	10	15	13	26	23	12	16	5
	Males	191	10	28	6	3	2	1	6	5	9	16	7	4	6	7	11	5	9	9	15	14	7	8	3
	Females	166	5	25	5	4	2	3	3	5	13	10	11	10	10	8	2	5	6	4	11	9	5	8	2
Starke	Total	148	7	33	9	4	1	3	5	4	4	7	4	2	3	2	7	4	6	10	6	9	8	6	4
	Males	77	4	15	6	3	1	....	1	2	2	3	....	....	2	1	2	1	3	7	4	9	5	3	3
	Females	71	3	18	3	1	....	3	4	2	2	4	4	2	1	1	5	3	3	3	2	....	3	3	1
Steuben	Total	174	4	27	6	2	3	3	5	1	2	13	7	6	5	3	3	6	10	11	11	17	12	16	1
	Males	84	1	15	3	1	2	2	2	1	2	5	2	3	2	1	1	3	6	7	5	9	5	5	1
	Females	90	3	12	3	1	1	1	3	....	....	8	5	3	3	2	2	3	4	4	6	8	7	11	....
St. Joseph	Total	886	44	185	50	23	15	13	45	26	22	27	35	41	22	24	31	30	30	44	39	42	42	44	12
	Males	462	23	90	29	12	8	4	22	14	9	15	18	25	14	12	17	19	15	21	20	26	19	26	4
	Females	424	21	95	21	11	7	9	23	12	13	12	17	16	8	12	14	11	15	23	19	16	23	18	8
Sullivan	Total	352	14	59	23	11	2	2	14	9	13	18	15	10	16	6	12	14	19	11	17	16	16	21	14
	Males	179	7	35	15	5	1	2	6	3	6	14	5	2	4	4	7	5	10	4	13	8	6	11	6
	Females	173	7	24	8	6	1	....	8	6	7	4	10	8	12	2	5	9	9	7	4	8	10	10	8
Switzerland	Total	176	9	28	4	2	3	1	1	1	9	9	14	7	6	7	4	7	6	5	10	10	13	20	....
	Males	83	5	18	1	....	2	....	....	....	5	2	4	3	3	4	1	6	2	3	4	4	8	8	....
	Females	93	4	10	3	2	1	1	1	1	4	7	10	4	3	3	3	1	4	2	6	6	5	12	....
Tippecanoe	Total	549	23	78	18	12	6	7	15	8	22	18	14	19	28	21	24	24	27	28	33	41	43	37	3
	Males	310	13	50	8	5	3	5	7	6	13	8	8	12	20	9	9	14	17	12	15	28	28	17	3
	Females	239	10	28	10	7	3	2	8	2	9	10	6	7	8	12	15	10	10	16	18	13	15	20	....
Tipton	Total	272	17	49	20	4	5	1	6	6	12	14	12	11	13	9	8	7	7	8	17	9	11	22	4
	Males	134	12	27	7	2	4	....	4	2	5	6	6	4	3	4	2	6	3	2	10	6	6	10	3
	Females	138	5	22	13	2	1	1	2	4	7	8	6	7	10	5	6	1	4	6	7	3	5	12	1
Union	Total	85	3	4	2	2	2	....	1	3	3	1	3	2	3	5	2	3	4	5	7	10	5	13	2
	Males	38	3	3	1	1	....	....	....	2	1	....	....	2	....	2	1	1	3	3	3	5	2	4	1
	Females	47	....	1	1	1	2	....	1	1	2	1	3	....	3	3	1	2	1	2	4	5	3	9	1
Vanderburgh	Total	1,124	46	220	60	23	8	12	37	21	33	46	55	46	68	51	43	54	42	57	46	55	52	38	11
	Males	603	28	127	34	12	4	7	18	10	14	21	22	21	36	30	23	31	27	29	24	27	32	21	5
	Females	521	18	93	26	11	4	5	19	11	19	25	33	25	32	21	20	23	15	28	22	28	20	17	6
Vermillion	Total	198	12	43	6	7	2	5	7	5	5	11	11	6	7	7	12	4	8	7	9	6	7	11	....
	Males	100	5	22	2	5	2	1	3	3	2	6	4	1	5	2	7	3	2	6	6	3	3	6	....
	Females	98	7	21	4	2	....	4	4	2	3	5	7	5	2	5	5	1	5	1	3	3	4	5	...
Vigo	Total	876	37	186	47	18	14	9	25	17	40	48	39	33	31	27	24	29	40	31	37	46	34	43	21
	Males	471	18	110	27	12	4	3	11	8	16	29	21	16	17	15	8	19	24	15	21	31	16	16	14
	Females	405	19	76	20	6	10	6	14	9	24	19	18	17	14	12	16	10	16	16	16	15	18	27	7

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TABLE 3—Continued.

STATE AND COUNTIES.	Sex.	Total Deaths at All Ages, 1899-1900.	Still Born.	Ages in Years. Under 1 Year.	1.	2.	3.	4.	5 to 10.	10 to 15.	15 to 20.	20 to 25.	25 to 30.	30 to 35.	35 to 40.	40 to 45.	45 to 50.	50 to 55.	55 to 60.	60 to 65.	65 to 70.	70 to 75.	75 to 80.	80 and Over.	Un-known.
Wabash	Total	326	16	57	9	6	2	2	10	6	10	13	11	11	14	5	14	13	20	13	22	17	26	26	3
	Males	166	9	34	3	5	2	....	6	4	3	6	5	5	6	1	6	8	7	6	10	6	14	19	1
	Females	160	7	23	6	1	....	2	4	2	7	7	6	6	8	4	8	5	13	7	12	11	12	7	2
Warren	Total	104	2	12	3	1	....	...	....	2	3	4	6	4	4	4	2	2	8	5	10	10	7	14	1
	Males	57	1	6	3	1	....	....	....	1	1	3	2	3	2	....	....	1	5	5	3	5	5	10	....
	Females	47	1	6	....	....	....	....	....	1	2	1	4	1	2	4	2	1	3	....	7	5	2	4	1
Warrick	Total	437	9	80	23	16	7	4	21	21	18	21	20	17	17	12	12	17	12	19	20	20	23	20	8
	Males	221	5	43	10	11	3	3	8	7	9	8	11	8	7	7	8	9	3	10	12	10	12	13	4
	Females	216	4	37	13	5	4	1	13	14	9	13	9	9	10	5	4	8	9	9	8	10	11	7	4
Washington	Total	271	14	42	8	8	1	1	6	4	11	17	10	11	6	7	10	9	14	9	18	15	20	25	5
	Males	129	5	22	5	4	1	1	1	2	3	7	6	4	3	4	6	5	7	2	8	6	11	15	1
	Females	142	9	20	3	4	....	....	5	2	8	10	4	7	3	3	4	4	7	7	10	9	9	10	4
Wayne	Total	632	15	72	10	9	7	5	28	6	28	27	21	25	26	24	24	30	23	32	42	56	40	79	3
	Males	324	8	38	4	5	2	2	11	4	13	14	12	11	9	11	11	14	16	20	27	28	22	40	2
	Females	308	7	34	6	4	5	3	17	2	15	13	9	14	17	13	13	16	7	12	15	28	18	39	1
Wells	Total	260	8	47	7	10	3	3	4	7	9	14	8	11	10	5	5	12	14	15	12	9	23	22	2
	Males	132	4	25	3	3	1	1	1	5	2	9	1	2	7	4	2	8	5	7	7	7	14	13	1
	Females	128	4	22	4	7	2	2	3	2	7	5	7	9	3	1	3	4	9	8	5	2	9	9	1
White	Total	185	8	34	14	3	5	4	8	5	5	5	7	6	6	5	6	7	8	11	8	11	9	9	1
	Males	99	6	18	10	2	4	3	6	3	2	2	4	1	2	....	4	3	2	4	5	8	4	5	1
	Females	86	2	16	4	1	1	1	2	2	3	3	3	5	4	5	2	4	6	7	3	3	5	4	....
Whitley	Total	228	3	38	5	7	3	2	3	7	4	9	8	8	7	9	9	6	20	11	11	21	17	20	....
	Males	111	....	19	2	2	2	1	1	2	....	4	3	5	4	3	5	4	7	7	8	13	9	10	....
	Females	117	3	19	3	5	1	1	2	5	4	5	5	3	3	6	4	2	13	4	3	8	8	10	....

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TABLE 4.

Deaths in Indiana During the Year Ending September 30, 1900, Statistically Classified by the Bertillon System, with Rates per 100,000, Estimated Population.

Classification Number.	CAUSES OF DEATH.	No. of Deaths	Death Rate per 100,000.
	All causes	35,516	141.1
	Stillbirths	1,456	57.8
	GENERAL DISEASES.		
	I. EPIDEMIC DISEASES.		
1	Typhoid fever	1,329	52.8
1a	Typho-malarial fever	111	4.4
2	Typhus fever	.....	.....
3	Scurvy	.....	.....
4	Smallpox	19	.7
5	Measles	85	3.3
6	Scarlet fever	141	5.6
7	Whooping cough	287	11.4
8a	Diphtheria	482	19.1
8b	Membranous croup	205	8.1
8c	Croup	59	2.3
9	Influenza	424	16.8
10	Hydrophobia	3	.1
11-12	Cholera nostras	.....	.....
13	Other epidemic diseases	.....	.....
	II. OTHER GENERAL DISEASES.		
14	Pyemia and septicemia	254	10.0
15	Milk poisoning	3	.1
16	Malignant pustule	.....	.....
17	Rabies	.....	.....
18	Relapsing fever	.....	.....
19-20	Malaria	374	14.8
21	Pellagra	.....	.....
	Tuberculosis—		
22a	Lungs	3,364	133.6
22b	Meninges	173	6.8
22c	Peritoneum	109	4.3
22d	Skin	.....	.....
22e	Other organs	127	5.0
22f	General	872	34.6
23	Scrofula	40	1.5
24	Syphilis	60	2.3
	Cancer—		
25a	Mouth	18	.7
25b	Stomach or liver	336	13.3
25c	Intestines or rectum	60	2.3
25d	Uterus	95	3.7
25e	Breast	59	2.3
25f	Skin	49	1.9
25g	Other organs	429	17.0
26-27	Rheumatism	256	10.1
28	Diabetes	111	4.4
29	Exophthalmic goitre	19	.7
30	Addison's disease	6	.2
31	Leukemia	23	.9
32	Anemia, chlorosis	118	4.6
33	Other general diseases	4	.1
34	Alcoholism	71	2.8
35-37	Chronic poisoning	20	.7
	LOCAL DISEASES.		
	III. DISEASES OF THE NERVOUS SYSTEM AND OF THE ORGANS OF SENSE.		
38	Encephalitis	196	7.7
39a	Simple meningitis	447	17.7
39b	Cerebro-spinal meningitis	391	15.5
42	Apoplexy	1,056	41.9
43	Cerebral softening	115	4.5

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TABLE 4—Continued.

Classification Number.	CAUSES OF DEATH.	No. of Deaths	Death Rate per 100,000.
44	Paralysis	1,109	44.0
45	General paralysis of insane	13	.5
46	Other forms of insanity	81	3.2
47	Epilepsy	158	6.2
48	Convulsions	48	1.9
49	Convulsions of infants	381	15.1
50	Tetanus	80	3.1
40-41, 51-54	Other nervous diseases	289	11.4
	IV. Diseases of the Circulatory System.		
55	Pericarditis	50	1.9
56	Endocarditis	110	4.3
57	Organic heart disease	1,759	69.8
58	Angina pectoris	173	6.8
59	Diseases of the arteries	39	1.5
60	Embolism	20	.7
61	Varices, hemorrhoids	3	.1
62	Phlebitis	6	.2
63	Lymphangitis	.....	.....
64	Other lymphatic diseases	.....	.....
65	Hemorrhage	57	2.2
66	Other circulatory diseases	12	.4
	V. Diseases of the Respiratory System.		
67	Diseases of the nose	.....	.....
68	Diseases of the larynx and thyroid	73	2.9
69	Acute bronchitis	308	12.2
70	Chronic bronchitis	214	8.5
71	Broncho-pneumonia	228	9.0
72	Pneumonia	2,655	105.5
73	Pleurisy	31	1.2
74	Congestion of the lungs	58	2.3
75	Gangrene of the lungs	6	.2
76	Asthma and emphysema	66	2.6
77	Other respiratory diseases	153	6.0
	VI. Diseases of the Digestive System.		
78	Diseases of the mouth	31	1.2
79	Diseases of the pharynx and esophagus	76	3.0
80	Ulcer of the stomach	61	2.4
81	Other diseases of stomach	615	24.4
82	Cholera infantum	2,049	81.4
83	Diarrhœa and enteritis	345	13.3
84	Dysentery	323	12.8
86	Hernia and intestinal obstruction	200	7.9
85-87	Other diseases of the intestines	376	14.9
88	Acute yellow atrophy of the liver	14	.5
89-90	Cirrhosis of the liver	136	5.4
91-92	Other diseases of the liver	380	15.1
93	Peritonitis	325	12.9
94	Other diseases of the digestive system	3	.1
95	Iliac abscess	125	4.9
	VII. Diseases of the Genito-Urinary System.		
96	Acute nephritis	223	8.8
97	Bright's disease	1,145	45.5
98-100	Other diseases of the kidneys	68	2.7
101	Vesical calculi	.....	.....
102	Diseases of the bladder	171	6.7
103-106	Diseases of the male genital organs	35	1.3
111	Uterine tumor	10	.3
109, 110-112	Other uterine diseases	18	.7
113	Ovarian tumor	38	1.5
107-108, 114-115	Other diseases of the female genital organs	41	1.6
	VIII. Puerperal Diseases.		
116-118, 123-124	Accidents of pregnancy	115	4.5
119, 120-122	Puerperal septicemia	172	6.8
121	Puerperal albuminuria	51	2.0

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TABLE 4—Continued.

Classification Number.	CAUSES OF DEATH.	No. of Deaths	Death Rate per 100,000.
	IX. DISEASES OF THE SKIN AND CELLULAR TISSUE.		
125	Erysipelas	95	3.7
126	Gangrene	84	3.3
127	Anthrax	1	.0
128	Phlegmon, acute abscess	46	1.8
129	Other diseases of the skin	35	1.3
	X. DISEASES OF THE LOCOMOTOR SYSTEM.		
130	Pott's disease	18	.7
131	Chronic or cold abscess	1	.....
133	White swellings	1	.....
132, 134-136	Other diseases of the locomotor system	23	.9
	XI. MALFORMATIONS.		
137	Malformations	242	9.6
	XII. DISEASES OF INFANCY.		
138a	Congenital debility	328	13.0
138b	Premature birth	837	33.2
139	Want of care	149	5.9
140	Other diseases of infancy	47	1.8
	XIII. DISEASES OF OLD AGE.		
141	Senile debility	1,031	41.0
	XIV. VIOLENCE.		
	A. Suicide.		
142a	Poison	74	2.9
142b	Asphyxia	3	.1
142c	Strangulation	28	1.1
142d	Drowning	7	.2
142e	Firearms	55	2.1
142f	Cutting instruments	9	.3
142g	Fall from height	.....	.....
142h	Crushing	.....	.....
142i	Other methods	20	.7
	B. Accidents.		
143	Fractures	113	4.4
144	Dislocations	4	.1
145a	Gunshot	122	4.8
145b	Lightning	19	.7
145c	Mining accidents	15	.5
145d	Railroad accidents	251	9.9
145e	Vehicles and horses	46	1.8
146a	Fire (burn)	165	6.5
146b	Hot liquid (scald)	10	.3
146c	Corrosive substance	.....	.....
147a	Sunstroke	11	.4
147b	Freezing	4	.1
148	Accidental drowning	135	5.3
149	Starving	5	.1
150	Noxious gases	20	.7
151	Other accidental poisons	82	3.2
152a	Other accidents	332	13.1
	C. Homicide.		
152b	Homicide	27	1.0
	XV. CAUSES ILL-DEFINED.		
153	Exhaustion, cachexia debility	390	15.4
154	Fever, inflammation	63	2.5
155a	Dropsy	356	14.1
155b	Heart failure	198	7.8
156	Asphyxia	36	1.4
157	Sudden death	11	.4
158	Abdominal tumor	23	.9
159	Other tumors	44	1.7
161	Unknown or not specified causes	1,102	43.7

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Deaths in Indiana, by Geographical Sections and by Counties, for Year Ending September, 1900.

STATE AND COUNTIES.	Population, Census 1900.	Total Deaths Reported for Year.	Annual Death Rate per 1,000 Population.	Stillbirths.	Important Ages. Under 1 Year.	1 to 5, Inclusive.	Sixty-five Years and Over.	Deaths from Important Causes. Pulmonary Consumption.	Other Forms Tuberculosis.	Typhoid Fever.	Diphtheria.	Croup.	Scarlet Fever.	Measles.	Whooping Cough.	Pneumonia.	Diarrheal Diseases. Under 5.	Cerebro-spinal Meningitis.	Influenza.	Puerperal Septicemia.	Cancer.	Violence.	Smallpox.	Institutions.
State	2,516,462	*35,516	14.1	1,456	6,310	3,150	8,437	3,364	1,381	1,440	686	59	141	85	287	2,655	2,049	391	424	172	1,046	1,557	19	947
Northern counties	839,835	10,553	12.5	389	1,900	910	2,718	886	367	351	259	18	45	27	80	666	630	92	119	51	359	514	4	239
Adams	22,232	309	13.8	22	70	40	62	31	10	13	7	...	...	...	5	19	23	4	2	2	7	10	...	...
Allen	77,270	949	12.2	43	177	72	218	75	46	24	17	1	4	3	7	65	51	11	4	1	36	37	..	41
Benton	13,123	115	8.7	8	14	9	22	14	4	...	2	...	1	...	...	3	3	1	1	2	3	7	...	...
Blackford	17,213	203	11.7	12	39	22	36	16	13	6	5	...	2	...	1	14	10	6	1	1	6	7	1	...
Carroll	19,953	250	12.5	9	42	20	66	20	10	8	3	...	1	...	1	11	11	2	1	3	16	11	...	...
Cass	34,545	511	14.7	19	76	36	134	66	22	12	11	...	2	...	4	24	19	8	8	...	14	23	1	63
Dekalb	25,711	322	12.5	5	46	19	93	30	10	12	5	1	1	1	1	26	22	...	2	...	8	29	...	2
Elkhart	45,052	551	12.2	16	80	38	172	44	15	21	4	1	2	10	...	26	28	3	7	4	17	29	...	1
Fulton	17,453	215	12.3	2	40	22	57	20	5	4	5	1	1	...	3	14	15	4	3	1	12	5	...	...
Grant	54,693	828	15.1	19	155	77	190	93	24	45	19	3	2	1	4	53	56	6	11	4	21	31	...	62
Howard	28,575	410	14.3	23	55	40	100	36	23	13	11	2	...	...	5	25	18	5	5	6	18	20	...	3
Huntington	28,901	326	11.2	5	57	28	103	25	12	17	5	...	...	...	4	17	24	...	4	1	13	7	...	...
Jasper	14,292	189	13.2	11	49	16	45	16	7	3	...	...	1	...	5	16	13	3	3	...	5	5	1	...
Jay	26,818	357	13.3	25	87	33	63	31	19	17	3	...	...	...	8	26	26	4	6	2	7	13	...	2
Kosciusko	29,109	316	10.8	10	44	25	113	29	12	8	5	1	...	...	1	18	18	5	2	3	5	18	...	1
Lagrange	15,284	195	12.7	6	23	18	75	19	5	9	6	...	3	...	1	13	7	1	...	...	8	6	...	1
Lake	37,892	395	10.4	12	102	40	68	23	10	6	27	3	3	...	6	32	21	4	2	1	18	41	...	5
Laporte	38,386	450	11.7	13	81	25	146	31	6	8	14	...	4	1	...	20	23	...	5	...	25	26	...	8
Marshall	25,119	311	12.3	4	49	26	86	20	15	7	4	...	1	...	2	19	20	2	3	...	13	18	...	2
Miami	28,343	373	13.1	9	59	32	104	27	11	18	5	...	1	1	10	26	23	4	9	1	10	14	..	4
Newton	10,448	100	9.5	2	20	5	32	12	2	1	1	...	...	...	2	8	1	1	3	...	4	3	...	...
Noble	23,533	272	11.5	17	35	18	99	23	5	7	...	...	1	3	...	16	13	2	3	2	10	10	...	...
Porter	19,175	245	12.7	5	47	14	79	15	6	3	2	1	5	...	3	19	17	...	9	2	14	14	1	3

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Pulaski	14,083	154	10.9	2	32	19	39	11	2	9	6	...	5	...	...	16	14	...	2	...	6	15	...	4
Starke	10,431	148	14.1	7	33	17	29	6	6	5	7	1	1	1	...	12	14	...	1	...	...	10	...	...
Steuben	15,219	174	11.4	4	27	14	56	12	10	6	...	...	1	...	...	10	15	1	2	2	6	7	...	3
St. Joseph	58,881	886	15.0	44	185	101	167	67	23	26	70	...	...	3	3	52	66	8	8	5	19	55	...	24
Wabash	28,235	326	11.5	16	57	18	91	20	10	15	3	1	...	2	...	23	25	1	5	2	17	12	...	1
Wells	23,449	260	11.0	8	47	23	66	21	12	14	4	2	...	...	1	18	14	...	3	3	7	5	...	5
White	19,138	185	9.6	8	34	26	37	13	...	7	6	...	3	...	...	18	13	4	3	2	7	11	...	1
Whitley	17,328	228	13.1	3	38	17	69	20	12	7	2	...	...	1	3	7	7	2	1	1	7	15	...	3
Central counties	1,024,791	14,922	14.5	650	2,655	1,300	3,518	1,437	623	534	271	15	81	25	132	1,143	821	174	200	61	439	616	8	521
Bartholomew	24,594	424	17.2	21	85	44	96	49	11	22	11	...	1	...	4	49	27	6	9	2	10	16	...	1
Boone	26,321	357	13 5	26	52	39	90	47	15	12	7	...	1	...	...	22	34	2	4	2	17	4	...	1
Brown	9,727	149	15.3	4	28	10	35	20	1	13	1	1	1	1	1	8	13	3	...	3	4	1	...	...
Clay	34,285	355	10.3	8	83	43	68	30	13	33	3	...	...	1	3	33	14	6	1	...	6	16	5	1
Clinton	28,202	435	15.4	23	71	47	108	26	24	18	24	...	2	...	3	37	20	5	5	3	14	19	...	4
Decatur	19,518	269	13.7	9	38	20	88	27	10	12	3	...	...	1	3	18	16	3	3	...	8	14	...	3
Delaware	49,624	689	13.8	36	165	72	127	64	21	31	6	...	4	4	10	42	52	7	10	6	8	36	...	3
Fayette	13,495	188	13.9	3	25	15	58	19	7	6	6	...	...	...	2	17	9	5	1	1	9	7	...	1
Fountain	21,446	266	12.4	15	42	13	68	24	15	5	1	...	2	...	...	31	8	2	4	4	8	10	...	...
Franklin	16,388	247	15.0	8	47	9	99	34	3	2	2	...	...	...	5	14	4	2	10	1	7	13	...	9
Hamilton	29,914	453	15.1	15	88	44	109	41	14	11	3	...	5	1	6	33	35	7	11	1	11	17	...	1
Hancock	19,189	270	14 0	20	46	28	66	26	12	13	5	...	2	...	1	19	21	4	2	...	5	11	...	1
Hendricks	21,292	266	12.4	10	50	21	73	32	6	3	3	...	4	...	3	12	16	6	3	2	5	9	...	...
Henry	25,088	424	16.9	22	68	33	118	24	15	10	15	...	10	2	5	31	14	3	11	4	12	12	...	1
Johnson	20,223	279	13.7	13	39	22	88	33	16	14	1	1	...	...	1	16	19	2	6	1	12	4	...	...
Madison	70,470	1,046	14.8	79	235	154	145	88	43	31	34	3	7	7	14	79	83	14	6	2	26	41	3	5
Marion	197,227	3,268	16.5	131	591	237	620	265	172	89	48	2	25	1	28	254	149	35	48	14	99	139	...	366
Monroe	20,878	328	15.7	7	47	30	85	37	17	17	5	...	...	...	5	35	17	8	2	2	8	6	...	1
Montgomery	29,388	409	13.5	16	61	23	111	55	15	13	9	1	2	...	...	27	21	5	6	...	17	23	...	2
Morgan	20,457	319	15.5	12	71	19	75	35	19	15	...	...	2	...	7	32	18	1	5	...	12	7	...	2
Owen	15,149	209	13.7	6	30	18	55	28	9	13	...	...	...	1	1	21	20	1	2	1	3	6	...	...
Parke	23,000	272	11.8	8	47	36	57	20	12	10	4	...	...	...	4	27	27	2	...	2	7	12	...	...
Putnam	21,478	268	12.4	24	43	20	74	33	12	14	3	...	...	1	1	15	11	2	3	...	7	14	...	2
Randolph	28,653	360	12.5	8	59	32	121	44	12	9	6	...	1	...	2	25	20	3	2	...	10	12	...	2
Rush	20,148	293	14.5	11	40	20	92	28	25	12	5	1	...	...	1	11	11	6	6	...	11	10	...	...
Shelby	26,491	363	13.7	6	60	29	93	42	17	16	1	...	3	1	7	25	19	3	4	1	13	14	...	1
Tippecanoe	38,659	549	14.2	23	78	43	154	58	16	12	18	...	...	1	...	39	20	6	10	...	17	32	...	57
Tipton	19,116	272	14.2	17	49	30	59	31	7	9	4	1	1	...	2	16	21	3	1	2	9	12	...	2
Union	6,748	85	12.5	3	4	6	35	11	2	3	2	...	...	...	...	3	2	1	2	...	2	3	...	...

* Stillbirths included.

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Deaths in Indiana, by Geographical Sections and by Counties, for Year Ending September, 1900—Continued.

STATE AND COUNTIES.	Population, Census 1900.	Total Deaths Reported for Year.	Annual Death Rate per 1,000 Population.	Stillbirths.	Important Ages.			Deaths from Important Causes.																
					Under 1 Year.	1 to 5, Inclusive.	Sixty-five Years and Over.	Pulmonary Consumption.	Other Forms Tuberculosis.	Typhoid Fever.	Diphtheria.	Croup.	Scarlet Fever.	Measles.	Whooping Cough.	Pneumonia.	Diarrheal Diseases. Under 5.	Cerebro-spinal Meningitis.	Influenza.	Puerperal Septicemia.	Cancer.	Violence.	Smallpox.	Institutions.
Vermillion	15,252	198	12.9	12	43	20	33	13	8	11	8	...	1	...	1	15	9	2	5	1	7	15	...	....
Vigo	62,035	876	14.1	37	186	88	160	77	12	39	16	2	3	2	9	83	55	13	9	3	30	46	...	25
Warren	11,371	104	9.1	2	12	4	41	14	3	1	...	..	...	...	...	11	6	2	1	1	1	8	...	1
Wayne	38,970	632	16.2	15	72	31	217	62	39	15	17	3	3	1	3	43	10	4	8	2	24	27	...	29
Southern counties	651,836	10,041	15.4	417	1,755	940	2,202	1,041	391	555	156	26	16	33	75	846	598	125	105	60	248	427	7	187
Clark	31,835	477	14.9	16	76	41	103	61	27	18	5	...	2	5	2	48	16	5	1	....	10	18	...	17
Crawford	13,476	201	14.9	5	31	27	40	18	19	9	1	2	....	1	1	29	15	3	3	4	4	4	...	1
Daviess	29,914	424	14.1	21	92	46	76	31	21	26	15	1	...	...	7	19	26	5	9	2	9	20	...	....
Dearborn	22,194	303	13.6	7	43	15	98	26	6	8	11	1	1	..	....	31	14	2	2	....	11	23	...	....
Dubois	20,357	267	13.1	10	53	29	51	30	9	22	4	...	....	...	....	30	18	1	1	1	3	10	...	....
Floyd	30,118	473	15.7	23	59	35	128	57	15	29	8	...	1	...	1	18	20	4	7	4	17	12	...	2
Gibson	30,099	475	15.7	33	98	44	79	37	19	33	2	..	1	..	1	38	27	10	5	5	11	17	...	....
Greene	28,530	391	13.7	19	78	36	78	42	13	19	9	2	2	...	3	29	23	9	5	2	14	17	...	1
Harrison	21,702	300	13.8	12	38	27	81	34	12	25	1	1	...	...	2	27	10	4	4	2	6	12	...	1
Jackson	26,633	415	15.5	25	87	43	79	54	15	23	16	1	1	...	7	33	35	2	4	3	7	15	...	2
Jefferson	22,913	374	16.3	18	39	21	114	42	15	13	4	...	....	1	1	37	13	3	2	6	18	20	...	6
Jennings	15,757	255	16.1	11	39	13	69	27	4	24	3	..	....	...	....	22	11	1	2	1	11	13	...	2
Knox	32,746	577	17.6	30	105	72	98	53	13	34	12	2	2	2	4	54	38	9	1	3	11	26	...	4
Lawrence	25,729	386	15.0	10	74	42	78	31	17	19	10	3	....	7	3	34	36	3	7	6	7	25	2	....
Martin	14,711	225	15.2	8	44	27	48	19	13	16	3	...	....	...	4	10	9	9	9	1	4	13	..	3
Ohio	4,724	70	14.8	.....	8	4	29	9	.....	2	....	..	....	1	1	7	6	1	1	....	.....	1	...	....
Orange	16,854	238	14.1	4	33	24	56	28	12	17	4	1	1	2	....	27	16	2	4	1	2	4	...	....
Perry	18,778	239	12.7	9	46	27	53	24	4	12	4	...	2	1	6	25	14	3	....	....	7	13	...	2
Pike	20,486	383	18.6	16	84	37	65	39	21	28	1	1	....	...	....	39	30	7	3	2	5	11	...	1
Posey	22,333	391	17.5	23	82	42	81	32	15	20	1	1	1	1	1	36	33	10	4	1	6	15	3	5

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Ripley	19,881	314	15.7	6	46	24	113	28	21	15	5	1	....	1	....	20	13	3	5	2	11	15	...	3
Scott	8,307	146	17.5	4	18	20	33	18	10	7	1	...	....	...	1	16	13	1	3	...	8	6	...	....
Spencer	22,407	357	15.9	15	53	26	77	47	12	24	7	1	....	1	2	26	24	3	2	2	6	14	...	1
Sullivan	26,005	352	13 5	14	59	38	70	37	11	25	6	...	1	1	2	20	20	3	3	3	9	25	...	3
Switzerland	11.840	176	14.8	9	28	10	53	24	7	3	2	3	....	...	...	14	6	1	2	1	2	7	...	....
Vanderburgh	71,769	1,124	15.6	46	220	102	191	129	36	39	11	1	1	7	13	86	72	12	8	5	29	44	1	130
Warrick	22,329	437	19 5	9	80	50	83	35	10	28	5	3	....	..	13	44	20	9	5	2	12	21	1	2
Washington	19,409	271	13.9	14	42	18	78	29	14	17	5	1	....	1	....	27	20	....	3	1	8	6	...	1

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TABLE A.

Births by Months, Color and Nationality of Parents, for Year Ending September 30, 1900.

COUNTIES.	1899.			1900.												Color.				Nationality.				Not Reported.	
																White.		Colored.		American.		Foreign.			
	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Males.	Females.	Total.	Males.	Females	Males.	Females	Fathers.	Mothers	Fathers.	Mothers	Fathers.	Mothers
Adams	51	29	32	37	40	44	46	45	40	36	33	49	251	231	482	251	231	....	....	422	445	44	26	8	3
Allen	84	65	49	86	53	132	135	100	61	137	90	68	538	522	1,060	538	522	....	....	720	783	191	148	138	118
Bartholomew	42	42	54	33	57	50	46	34	30	53	42	55	282	256	538	279	255	3	1	484	498	12	3	35	30
Benton	17	21	22	20	23	25	13	11	13	21	17	26	132	97	229	132	97	....	....	201	207	14	11	14	11
Blackford	30	29	39	35	14	27	30	23	21	34	34	40	193	163	356	193	163	....	....	309	312	24	22	18	17
Boone	84	39	49	43	42	45	33	27	31	105	39	52	319	270	589	319	269	....	1	457	456	....	1	130	130
Brown	30	9	20	15	25	22	11	21	8	8	16	10	106	89	195	106	89	....	....	193	193	....	....	....	....
Carroll	18	23	22	23	24	18	30	29	17	26	15	22	139	128	267	139	128	....	....	258	257	1	3	3	2
Cass	22	20	19	35	36	23	18	40	16	39	37	28	194	139	333	193	139	1	....	228	231	39	44	59	51
Clark	26	22	23	35	38	42	24	47	46	48	40	27	214	204	418	196	186	18	18	237	251	34	7	146	159
Clay	....	....	....	....	....	....	56	46	54	63	60	55	169	165	334	168	165	1	....	286	304	38	22	3	1
Clinton	39	38	46	47	40	48	34	19	45	35	50	36	241	236	477	240	235	1	1	476	476	....	....	....	....
Crawford	27	32	34	23	25	20	22	23	27	25	25	26	168	141	309	168	141	....	....	266	266	24	26	11	9
Daviess	73	58	54	71	69	66	50	53	32	61	64	66	371	346	717	365	344	6	2	690	701	8	2	6	1
Dearborn	22	29	28	38	26	27	30	18	34	30	25	33	171	169	340	170	166	1	3	310	320	14	12	15	7
Decatur	29	29	37	41	16	14	39	31	25	30	31	18	160	180	340	160	180	....	....	327	329	6	3	2	3
Dekalb	22	7	5	15	17	12	12	25	19	16	18	14	105	77	182	105	77	....	....	159	167	10	2	10	10
Delaware	129	24	6	183	83	88	80	90	91	79	83	83	528	491	1,019	521	487	7	4	947	975	51	25	7	5
Dubois	39	37	34	39	47	49	38	23	22	34	29	45	217	219	436	217	219	....	....	408	416	11	8	5	....
Elkhart	36	26	36	38	26	30	60	18	32	22	33	27	189	195	384	189	195	....	....	327	333	23	17	32	32
Fayette	15	14	12	20	16	16	11	18	13	18	26	11	102	88	190	100	86	2	2	130	130	5	7	54	52
Floyd	25	39	19	31	28	15	36	14	16	21	21	34	167	132	299	158	125	9	7	274	288	18	6	6	4
Fountain	24	17	16	38	37	26	27	39	8	31	29	25	170	147	317	170	147	....	....	304	309	9	3	....	1
Franklin	23	19	24	21	26	24	11	13	17	17	19	30	127	117	244	127	117	....	....	229	230	7	4	2	4
Fulton	27	18	22	33	29	28	22	29	24	25	17	21	157	138	295	157	138	....	....	288	290	....	....	5	3

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Gibson	64	32	42	65	37	57	14	42	45	68	53	61	301	279	580	292	264	9	15	551	564	15	6	8	4
Grant	67	56	49	70	76	81	82	72	63	72	77	68	439	394	833	438	392	1	2	734	755	65	49	23	18
Greene	42	34	30	49	44	42	33	48	52	63	53	50	269	271	540	269	271	....	....	488	498	3	2	42	33
Hamilton	45	50	33	49	37	46	49	50	47	59	35	42	278	264	542	273	259	5	5	377	394	141	136	13	1
Hancock	33	28	35	25	30	56	33	30	28	28	32	24	194	188	382	194	187	....	1	365	370	4	1	9	7
Harrison	29	31	29	68	34	23	44	26	25	57	19	32	218	199	417	216	199	2	....	414	415	1	....	....	....
Hendricks	41	18	23	29	24	17	58	17	9	62	24	24	185	164	349	185	163	....	1	347	347	1	1	....	....
Henry	44	35	51	49	43	46	48	47	50	47	34	40	290	244	534	282	241	8	3	494	491	12	16	24	23
Howard	35	38	40	46	50	52	39	34	36	54	49	41	281	233	514	281	233	....	....	513	513	....	....	....	....
Huntington	43	36	36	38	28	33	25	29	29	20	35	31	196	187	383	196	187	....	....	306	319	11	7	64	55
Jackson	54	40	37	29	53	55	50	43	42	45	54	48	264	281	545	261	250	3	1	501	517	15	11	19	7
Jasper	21	16	16	20	17	21	28	18	18	30	21	20	133	113	246	134	113	....	....	197	203	21	19	26	22
Jay	41	28	38	52	34	49	46	38	34	44	41	46	250	241	491	249	239	1	2	467	477	12	2	....	....
Jefferson	20	18	19	28	20	21	13	21	18	28	31	22	135	124	259	132	123	3	1	245	252	4	1	7	3
Jennings	32	21	8	25	18	35	27	29	26	22	24	20	137	150	287	136	147	1	3	263	269	19	16	3	....
Johnson	22	24	17	30	26	13	12	18	20	21	22	16	122	119	241	120	117	2	2	237	238	1	....	....	....
Knox	44	64	58	77	48	48	66	57	43	32	62	81	343	340	683	339	336	4	4	633	662	21	7	18	3
Kosciusko	32	19	32	43	27	38	33	18	18	29	48	33	198	176	369	193	176	....	....	323	312	1	1	44	55
Lagrange	10	11	17	28	16	20	22	31	22	18	22	21	125	113	238	125	112	....	1	233	235	2	....	....	....
Lake	61	49	34	31	20	19	16	31	22	24	29	27	194	169	363	194	169	....	....	254	274	109	89	....	....
Laporte	51	54	56	54	63	55	53	54	43	60	60	60	362	301	663	362	301	....	....	465	457	160	175	28	21
Lawrence	61	22	31	53	37	37	32	31	28	31	47	36	242	204	446	242	204	....	....	319	330	....	....	124	113
Madison	132	121	138	146	163	131	141	139	96	175	132	118	849	783	1,632	845	777	4	6	1,434	1,465	147	129	43	30
Marion	275	264	358	340	285	304	358	319	285	332	314	309	1,977	1,766	3,743	1,809	1,634	168	132	2,969	3,201	518	400	266	92
Marshall	24	20	21	37	32	27	32	47	26	33	45	33	197	180	377	197	180	....	....	360	364	11	9	3	1
Martin	25	20	18	18	29	20	20	18	7	9	21	11	175	101	216	115	101	....	....	147	158	46	30	20	25
Miami	30	28	27	29	41	33	23	25	19	33	23	28	167	172	339	167	172	....	....	286	300	26	17	18	13
Monroe	26	33	25	29	27	24	28	47	21	29	20	20	159	170	329	159	170	....	....	311	325	....	....	15	1
Montgomery	49	40	40	66	21	33	64	38	27	57	47	60	277	265	542	275	264	2	1	529	531	5	2	2	3
Morgan	41	43	39	20	15	16	26	19	27	26	20	18	161	149	310	158	147	3	2	277	220	2	....	27	86
Newton	14	9	11	16	14	17	36	13	11	22	26	18	120	87	207	120	87	....	....	161	163	21	19	21	21
Noble	21	23	22	39	35	31	29	24	21	27	38	29	153	186	339	153	186	....	....	310	316	8	7	15	10
Ohio	14	9	7	16	6	3	14	10	7	10	11	8	52	63	115	52	63	....	....	115	115	....	....	....	....
Orange	27	18	15	31	18	23	28	14	9	11	6	22	120	102	222	120	102	....	....	220	220	....	....	....	....
Owen	29	33	22	22	22	32	30	16	27	27	48	28	185	151	336	184	151	1	....	333	332	....	....	1	2
Parke	32	18	18	7	19	4	20	15	14	21	19	13	95	105	200	93	102	2	3	184	190	12	6	....	....
Perry	20	32	27	47	30	32	36	24	19	38	35	29	201	168	369	197	161	4	7	342	348	25	19	1	1
Pike	29	26	29	41	45	20	29	34	22	33	28	20	178	178	356	177	177	1	1	340	344	....	....	7	3
Porter	16	12	16	21	26	16	19	26	12	19	18	14	119	96	215	119	96	....	....	184	185	28	27	....	....
Posey	45	39	31	61	48	41	49	31	21	40	46	43	264	231	495	263	230	1	1	477	484	11	5	1	....
Pulaski	4	6	5	14	9	2	9	4	6	15	4	3	34	47	81	34	47	....	....	71	78	5	1	5	2
Putnam	56	23	42	42	38	32	56	37	33	37	40	44	259	221	480	256	220	3	1	461	472	4	1	8	....
Randolph	50	51	24	63	60	56	50	27	50	32	42	50	318	237	555	316	235	2	2	465	447	2	2	84	102

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TABLE A.

Births by Months, Color and Nationality of Parents, for Year Ending September 30, 1900.

COUNTIES.	1899.			1900.									Males.	Females.	Total.	Color.				Nationality.				Not Reported.	
																White.		Colored.		American.		Foreign.			
	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.				Males.	Females	Males.	Females	Fathers.	Mothers	Fathers.	Mothers	Fathers.	Mothers
Adams	51	29	32	37	40	44	46	45	40	36	33	49	251	231	482	251	231	....	....	422	445	44	26	8	3
Allen	84	65	49	86	53	132	135	100	61	137	90	68	538	522	1,060	538	522	....	....	720	783	191	148	138	118
Bartholomew	42	42	54	33	57	50	46	34	30	53	42	55	282	256	538	279	255	3	1	484	498	12	3	35	30
Benton	17	21	22	20	23	25	13	11	13	21	17	26	132	97	229	132	97	....	....	201	207	14	11	14	11
Blackford	30	29	39	35	14	27	30	23	21	34	34	40	193	163	356	193	163	....	....	309	312	24	22	18	17
Boone	84	39	49	43	42	45	33	27	31	105	39	52	319	270	589	319	269	....	1	457	456	....	1	130	130
Brown	30	9	20	15	25	22	11	21	8	8	16	10	106	89	195	106	89	....	....	193	193	....	....	....	....
Carroll	18	23	22	23	24	18	30	29	17	26	15	22	139	128	267	139	128	....	....	258	257	1	3	3	2
Cass	22	20	19	35	36	23	18	40	16	39	37	28	194	139	333	193	139	1	....	228	231	39	44	59	51
Clark	26	22	23	35	38	42	24	47	46	48	40	27	214	204	418	196	186	18	18	237	251	34	7	146	159
Clay	....	....	....	....	....	....	56	46	54	63	60	55	169	165	334	168	165	1	....	286	304	38	22	3	1
Clinton	39	38	46	47	40	48	34	19	45	35	50	36	241	236	477	240	235	1	1	476	476	....	....	....	....
Crawford	27	32	34	23	25	20	22	23	27	25	25	26	168	141	309	168	141	....	....	266	266	24	26	11	9
Daviess	73	58	54	71	69	66	50	53	32	61	64	66	371	346	717	365	344	6	2	690	701	8	2	6	1
Dearborn	22	29	28	38	26	27	30	18	34	30	25	33	171	169	340	170	166	1	3	310	320	14	12	15	7
Decatur	29	29	37	41	16	14	39	31	25	30	31	18	160	180	340	160	180	....	....	327	329	6	3	2	3
Dekalb	22	7	5	15	17	12	12	25	19	16	18	14	105	77	182	105	77	....	....	159	167	10	2	10	10
Dalaware	129	24	6	183	83	88	80	90	91	79	83	83	528	491	1,019	521	487	7	4	947	975	51	25	7	5
Dubois	39	37	34	39	47	49	38	23	22	34	29	45	217	219	436	217	219	....	....	408	416	11	8	5	....
Elkhart	36	26	36	38	26	30	60	18	32	22	33	27	189	195	384	189	195	....	....	327	333	23	17	32	32
Fayette	15	14	12	20	16	16	11	18	13	18	26	11	102	88	190	100	86	2	2	130	130	5	7	54	52
Floyd	25	39	19	31	28	15	36	14	16	21	21	34	167	132	299	158	125	9	7	274	288	18	6	6	4
Fountain	24	17	16	38	37	26	27	39	8	31	29	25	170	147	317	170	147	....	....	304	309	9	3	....	1
Franklin	23	19	24	21	26	24	11	13	17	17	19	30	127	117	244	127	117	....	....	229	230	7	4	2	4
Fulton	27	18	22	33	29	28	22	29	24	25	17	21	157	138	295	157	138	....	....	288	290	....	....	5	3

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Gibson	64	32	42	65	37	57	14	42	45	68	53	61	301	279	580	292	264	9	15	551	564	15	6	8	4
Grant	67	56	49	70	76	81	82	72	63	72	77	68	439	394	833	438	392	1	2	734	755	65	49	23	18
Greene	42	34	30	49	44	42	33	48	52	63	53	50	269	271	540	269	271	....	....	488	498	3	2	42	33
Hamilton	45	50	33	49	37	46	49	50	47	59	35	42	278	264	542	273	259	5	5	377	394	141	136	13	1
Hancock	33	28	35	25	30	56	33	30	28	28	32	24	194	188	382	194	187	....	1	365	370	4	1	9	7
Harrison	29	31	29	68	34	23	44	26	25	57	19	32	218	199	417	216	199	2	....	414	415	1	....	....	....
Hendricks	41	18	23	29	24	17	58	17	9	62	24	24	185	164	349	185	163	....	1	347	347	1	1	....	....
Henry	44	35	51	49	43	46	48	47	50	47	34	40	290	244	534	282	241	8	3	494	491	12	16	24	23
Howard	35	38	40	46	50	52	39	34	36	54	49	41	281	233	514	281	233	....	....	513	513	....	....	....	....
Huntington	43	36	36	38	28	33	25	29	29	20	35	31	196	187	383	196	187	....	....	306	319	11	7	64	55
Jackson	54	40	37	29	53	55	50	43	42	45	54	43	264	281	545	261	250	3	1	501	517	15	11	19	7
Jasper	21	16	16	20	17	21	28	18	18	30	21	20	133	113	246	133	113	....	....	197	203	21	19	26	22
Jay	41	28	38	52	34	49	46	38	34	44	41	46	250	241	491	249	239	1	2	467	477	12	2	....	....
Jefferson	20	18	19	28	20	21	13	21	18	28	31	22	135	124	259	132	123	3	1	245	252	4	1	7	3
Jennings	32	21	8	25	18	35	27	29	26	22	24	20	137	150	287	136	147	1	3	263	269	19	16	3	....
Johnson	22	24	17	30	26	13	12	18	20	21	22	16	122	119	241	120	117	2	2	237	238	1	....	....	....
Knox	44	64	58	77	48	48	66	57	43	32	62	81	343	340	683	339	336	4	4	633	662	21	7	18	3
Koscinsko	32	19	32	43	27	38	33	18	18	29	48	33	198	176	369	193	176	....	....	323	312	1	1	44	55
Lagrange	10	11	17	28	16	20	22	31	22	18	22	21	125	113	238	125	112	....	1	233	235	2	....	....	....
Lake	61	49	34	31	20	19	16	31	22	24	29	27	194	169	363	194	169	....	....	254	274	109	89	....	....
Laporte	51	54	56	54	63	55	53	54	43	60	60	60	362	301	663	362	301	....	....	465	457	160	175	28	21
Lawrence	61	22	31	53	37	37	32	31	28	31	47	36	242	204	446	242	204	....	....	319	330	....	....	124	113
Madison	132	121	138	146	163	131	141	139	96	175	132	118	849	783	1,632	845	777	4	6	1,434	1,465	147	129	43	30
Marion	275	264	358	340	285	304	358	319	285	332	314	309	1,977	1,764	3,743	1,809	1,634	168	132	2,909	3,201	518	400	266	92
Marshall	24	20	21	37	32	27	32	47	26	33	45	33	197	180	377	197	180	....	....	360	364	11	9	3	1
Martin	25	20	18	18	29	20	20	18	7	9	21	11	175	101	216	115	101	....	....	147	158	46	30	20	25
Miami	30	28	27	29	41	33	23	25	19	33	23	28	167	172	339	167	172	....	....	286	300	26	17	18	13
Monroe	26	33	25	29	27	24	28	47	21	29	20	20	159	170	329	159	170	....	....	311	325	....	....	15	1
Montgomery	49	40	40	66	21	33	64	38	27	57	47	60	277	285	542	275	264	2	1	529	531	5	2	2	3
Morgan	41	43	39	20	15	16	26	19	27	26	20	18	161	149	310	158	147	3	2	277	220	2	....	27	86
Newton	14	9	11	16	14	17	36	13	11	22	26	18	120	87	207	120	87	....	....	161	163	21	19	21	21
Noble	21	23	22	39	35	31	29	24	21	27	38	29	153	186	339	153	186	....	....	310	316	8	7	15	10
Ohio	14	9	7	16	6	3	14	10	7	10	11	8	52	63	115	52	63	....	....	115	115	....	....	....	....
Orange	27	18	15	31	18	23	28	14	9	11	6	22	120	102	222	120	102	....	....	220	220	....	....	....	....
Owen	29	33	22	22	22	32	30	16	27	27	48	28	185	151	336	184	151	1	....	333	332	....	....	1	2
Parke	32	18	18	7	19	4	20	15	14	21	19	13	95	105	200	93	102	2	3	184	190	12	6	....	....
Perry	20	32	27	47	30	32	36	24	19	38	35	29	201	168	369	197	161	4	7	342	348	25	19	1	1
Pike	29	26	29	41	45	20	29	34	22	33	28	20	178	178	356	177	177	1	1	340	344	....	....	7	3
Porter	16	12	16	21	26	16	19	26	12	19	18	14	119	96	215	119	96	....	....	184	185	28	27	....	....
Posey	45	39	31	61	48	41	49	31	21	40	46	43	264	231	495	263	230	1	1	477	484	11	5	1	....
Pulaski	4	6	5	14	9	2	9	4	6	15	4	3	34	47	81	34	47	....	....	71	78	5	1	5	2
Putnam	56	23	42	42	38	32	56	37	33	37	40	44	259	221	480	256	220	3	1	461	472	4	1	8	....
Randolph	50	51	24	63	60	56	50	27	50	32	42	50	318	237	555	316	235	2	2	465	447	2	2	84	102

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TABLE A—Continued.

COUNTIES.	1899.			1900.									Males.	Females.	Total.	Color.				Nationality.				Not Reported.	
																White.		Colored.		American.		Foreign.			
	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.				Males.	Females	Males.	Females	Fathers	Mothers	Fathers.	Mothers	Fathers.	Mothers
Ripley	53	18	14	52	37	6	60	19	13	23	29	7	170	161	331	170	161	....	....	....	....	....	....	330	330
Rush	35	31	36	25	26	26	26	27	23	20	36	22	176	157	333	168	154	8	3	325	332	....	....	7	...
Scott	10	12	14	11	10	16	18	10	6	13	13	14	63	84	147	63	84	....	....	120	126	2	2	21	15
Shelby	33	28	21	57	27	36	42	23	15	37	33	30	197	185	382	196	183	1	2	373	375	4	4	2	....
Spencer	26	22	10	29	25	16	18	19	13	29	31	18	146	110	256	144	110	2	....	30	20	....	....	221	231
Starke	12	15	12	9	11	8	11	14	16	10	17	15	77	73	150	77	73	....	....	130	131	19	17	....	1
Steuben	25	9	14	32	15	12	34	23	13	30	15	15	132	105	237	132	105	....	....	208	209	....	....	26	25
St. Joseph	27	36	37	50	44	58	38	36	28	60	80	52	282	264	546	280	260	2	4	373	393	148	135	21	14
Sullivan	45	27	47	35	18	36	28	37	25	36	13	10	185	172	357	185	172	....	....	346	352	11	5	....	....
Switzerland	19	13	10	20	20	10	13	13	7	22	14	9	91	79	170	91	79	....	....	167	167	....	....	....	....
Tippecanoe	40	29	30	49	42	30	39	31	25	42	23	22	218	184	402	214	184	4	....	331	343	50	44	16	10
Tipton	22	28	34	43	17	51	20	29	35	37	29	35	189	191	380	189	191	....	....	365	373	....	....	9	1
Union	12	9	4	18	9	4	10	6	7	8	8	4	48	51	99	46	49	2	2	98	98	1	1	....	....
Vanderburgh	102	109	129	122	150	104	119	89	97	115	89	94	665	654	1,319	619	595	46	59	1,111	1,185	168	107	28	15
Vermillion	31	19	17	31	21	17	17	14	13	19	18	14	141	90	231	141	90	....	....	201	209	12	10	14	8
Vigo	81	46	73	65	99	97	88	96	89	56	94	62	480	466	946	464	442	16	24	806	842	69	61	61	33
Wabash	12	25	20	23	23	35	25	17	18	23	20	31	144	128	272	143	128	1	....	235	235	....	1	36	35
Warren	11	17	17	13	15	15	14	10	13	18	8	19	88	82	170	88	82	....	....	....	....	....	....	170	170
Warrick	43	28	40	11	17	26	34	14	27	42	31	49	189	173	362	181	167	8	6	255	246	36	5	67	107
Washington	17	18	14	13	22	4	12	11	14	31	38	19	112	101	213	112	101	....	....	209	209	....	....	1	1
Wayne	55	50	42	65	47	55	48	59	47	55	41	40	327	277	604	317	263	10	14	555	571	35	24	10	5
Wells	28	26	13	24	25	75	20	22	10	21	24	25	161	112	273	161	112	....	....	265	267	8	6	....	....
White	72	22	24	56	17	22	42	25	15	43	40	30	230	178	408	230	178	....	....	....	....	....	....	399	399
Whitley	33	18	30	24	17	14	33	32	37	12	18	21	152	137	289	152	137	....	....	257	255	....	2	27	27
Total	3,629	2,933	3,073	3,940	3,356	3,385	3,643	3,222	2,826	3,856	3,410	3,317	21,224	19,366	40,590	20,845	19,016	379	350	34,332	35,255	2,635	2,039	3,164	2,837

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TABLE B.

Births, Number of Children Born to Each Mother, Grouped Ages of Parents, Still, Plurality and Illegitimate Births, Year Ending September 30, 1900.

COUNTIES.	Number of Children Born to Each Mother.													
	Total.	First.	Second.	Third.	Fourth.	Fifth.	Sixth.	Seventh.	Eighth.	Ninth.	Tenth.	Eleventh.	Twelfth and Over.	Not Reported.
Adams	482	109	99	62	51	50	33	34	13	12	4	6	7	2
Allen	1,060	277	183	145	97	83	75	49	32	23	12	9	7	68
Bartholomew	538	139	121	80	54	46	29	21	14	9	7	2	4	6
Benton	229	71	39	39	22	20	12	12	9	1	1	1	1	1
Blackford	356	90	76	57	44	27	24	19	8	3	2	3	1	2
Boone	589	159	118	116	64	45	31	20	10	9	2	4	6	5
Brown	195	56	29	28	28	15	6	7	8	9	2	5	1	1
Carroll	267	65	54	43	33	20	15	13	14	4	4	1	1	.....
Cass	333	81	71	61	31	32	25	11	4	5	2	3	5	2
Clark	418	125	95	63	43	37	19	12	11	7	1	1	3	1
Clay	334	84	64	40	42	25	20	18	11	11	3	.....	4	12
Clinton	477	152	86	73	66	30	24	18	14	6	4	2	1	1
Crawford	309	107	69	46	23	19	14	7	5	6	.....	.....	.....	13
Daviess	717	167	126	112	92	60	64	35	16	15	17	3	9	1
Dearborn	340	103	70	46	30	25	17	18	11	6	2	3	3	6
Decatur	340	84	81	62	41	25	18	11	6	5	.....	2	.....	5
Dekalb	182	59	36	35	20	12	6	6	1	2	1	2	.....	2
Delaware	1,019	311	223	142	121	70	67	25	15	15	8	9	6	7
Dubois	436	88	67	69	49	49	34	27	19	13	11	4	5	1
Elkhart	384	136	71	66	36	20	27	14	6	2	.....	2	.....	4
Fayette	190	51	44	34	12	12	10	6	4	1	2	2	.....	12
Floyd	299	84	47	46	42	19	19	19	5	10	4	.....	2	2
Fountain	317	101	71	44	30	26	15	13	5	5	1	3	2	1
Franklin	244	74	52	33	28	17	12	7	8	3	3	4	2	1
Fulton	295	85	63	45	32	24	16	10	9	6	2	.....	1	2

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TABLE A—Continued.

COUNTIES.	1899.			1900.									Males.	Females.	Total.	Color.				Nationality.				Not Reported.	
																White.		Colored.		American.		Foreign.			
	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.				Males.	Females	Males.	Females	Fathers	Mothers	Fathers.	Mothers	Fathers.	Mothers
Ripley	53	18	14	52	37	6	60	19	13	23	29	7	170	161	331	170	161	....	....	....	....	....	....	330	330
Rush	35	31	36	25	26	26	26	27	23	20	36	22	176	157	333	168	154	8	3	325	332	....	....	7	...
Scott	10	12	14	11	10	16	18	10	6	13	13	14	63	84	147	63	84	....	....	120	126	2	2	21	15
Shelby	33	28	21	57	27	36	42	23	15	37	33	30	197	185	382	196	183	1	2	373	375	4	4	2	....
Spencer	26	22	10	29	25	16	18	19	13	29	31	18	146	110	256	144	110	2	....	30	20	....	....	221	231
Starke	12	15	12	9	11	8	11	14	16	10	17	15	77	73	150	77	73	....	....	130	131	19	17	....	1
Steuben	25	9	14	32	15	12	34	23	13	30	15	15	132	105	237	132	105	....	....	208	209	....	....	26	25
St. Joseph	27	36	37	50	44	58	38	36	28	60	80	52	282	264	546	280	260	2	4	373	393	148	135	21	14
Sullivan	45	27	47	35	18	36	28	37	25	36	13	10	185	172	357	185	172	....	....	346	352	11	5	....	....
Switzerland	19	13	10	20	20	10	13	13	7	22	14	9	91	79	170	91	79	....	....	167	167	....	....	....	....
Tippecanoe	40	29	30	49	42	30	39	31	25	42	23	22	218	184	402	214	184	4	....	331	343	50	44	16	10
Tipton	22	28	34	43	17	51	20	29	35	37	29	35	189	191	380	189	191	....	....	365	373	....	....	9	1
Union	12	9	4	18	9	4	10	6	7	8	8	4	48	51	99	46	49	2	2	98	98	1	1	....	....
Vanderburgh	102	109	129	122	150	104	119	89	97	115	89	94	665	654	1,319	619	595	46	59	1,111	1,185	168	107	28	15
Vermillion	31	19	17	31	21	17	17	14	13	19	18	14	141	90	231	141	90	....	....	201	209	12	10	14	8
Vigo	81	46	73	65	99	97	88	96	89	56	94	62	480	466	946	464	442	16	24	806	842	69	61	61	33
Wabash	12	25	20	23	23	35	25	17	18	23	20	31	144	128	272	143	128	1	....	235	235	....	1	36	35
Warren	11	17	17	13	15	15	14	10	13	18	8	19	88	82	170	88	82	....	....	....	....	....	....	170	170
Warrick	43	28	40	11	17	26	34	14	27	42	31	49	189	173	362	181	167	8	6	255	246	36	5	67	107
Washington	17	18	14	13	22	4	12	11	14	31	38	19	112	101	213	112	101	....	....	209	209	....	....	1	1
Wayne	55	50	42	65	47	55	48	59	47	55	41	40	327	277	604	317	263	10	14	555	571	35	24	10	5
Wells	28	26	13	24	25	75	20	22	10	21	24	25	161	112	273	161	112	....	....	265	267	8	6	....	....
White	72	22	24	56	17	22	42	25	15	43	40	30	230	178	408	230	178	....	....	....	....	....	....	399	399
Whitley	33	18	30	24	17	14	33	32	37	12	18	21	152	137	289	152	137	....	....	257	255	....	2	27	27
Total	3,629	2,933	3,073	3,940	3,356	3,385	3,643	3,222	2,826	3,856	3,410	3,317	21,224	19,366	40,590	20,845	19,016	379	350	34,332	35,255	2,635	2,039	3,164	2,837

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TABLE B.

Births, Number of Children Born to Each Mother, Grouped Ages of Parents, Still, Plurality and Illegitimate Births, Year Ending September 30, 1900.

COUNTIES.	Number of Children Born to Each Mother.													
	Total.	First.	Second.	Third.	Fourth.	Fifth.	Sixth.	Seventh.	Eighth.	Ninth.	Tenth.	Eleventh.	Twelfth and Over.	Not Reported.
Adams	482	109	99	62	51	50	33	34	13	12	4	6	7	2
Allen	1,060	277	183	145	97	83	75	49	32	23	12	9	7	68
Bartholomew	538	139	121	80	54	46	29	21	14	9	7	2	4	6
Benton	229	71	39	39	22	20	12	12	9	1	1	1	1	1
Blackford	356	90	76	57	44	27	24	19	8	3	2	3	1	2
Boone	589	159	118	116	64	45	31	20	10	9	2	4	6	5
Brown	195	56	29	28	28	15	6	7	8	9	2	5	1	1
Carroll	267	65	54	43	33	20	15	13	14	4	4	1	1	.....
Cass	333	81	71	61	31	32	25	11	4	5	2	3	5	2
Clark	418	125	95	63	43	37	19	12	11	7	1	1	3	1
Clay	334	84	64	40	42	25	20	18	11	11	3	.....	4	12
Clinton	477	152	86	73	66	30	24	18	14	6	4	2	1	1
Crawford	309	107	69	46	23	19	14	7	5	6	.....	.....	.....	13
Daviess	717	167	126	112	92	60	64	35	16	15	17	3	9	1
Dearborn	340	103	70	46	30	25	17	18	11	6	2	3	3	6
Decatur	340	84	81	62	41	25	18	11	6	5	.....	2	.....	5
Dekalb	182	59	36	35	20	12	6	6	1	2	1	2	.....	2
Delaware	1,019	311	223	142	121	70	67	25	15	15	8	9	6	7
Dubois	436	88	67	69	49	49	34	27	19	13	11	4	5	1
Elkhart	384	136	71	66	36	20	27	14	6	2	.....	2	.....	4
Fayette	190	51	44	34	12	12	10	6	4	1	2	2	.....	12
Floyd	299	84	47	46	42	19	19	19	5	10	4	.....	2	2
Fountain	317	101	71	44	30	26	15	13	5	5	1	3	2	1
Franklin	244	74	52	33	28	17	12	7	8	3	3	4	2	1
Fulton	295	85	63	45	32	24	16	10	9	6	2	.....	1	2

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TABLE B—Continued.

COUNTIES.	Number of Children Born to Each Mother.													
	Total.	First.	Second.	Third.	Fourth.	Fifth.	Sixth.	Seventh.	Eighth.	Ninth.	Tenth.	Eleventh.	Twelfth and Over.	Not Reported.
Gibson	580	175	98	88	57	62	32	23	22	7	5	3	1	7
Grant	833	222	175	122	107	67	47	25	21	15	8	1	7	16
Greene	540	144	100	64	75	42	25	27	19	15	10	4	4	11
Hamilton	542	129	129	85	51	56	26	20	8	14	5	7	1	11
Hancock	382	101	81	70	40	21	16	11	12	5	2	4	5	14
Harrison	417	106	73	61	53	34	27	12	27	9	6	2	4	3
Hendricks	349	106	83	55	34	23	17	9	4	7	4	1	3	3
Henry	534	157	129	64	74	31	29	14	17	7	7	2	2	1
Howard	514	137	91	82	63	43	27	25	13	16	7	5	4	1
Huntington	383	116	83	63	28	33	20	14	9	3	1	2	7	4
Jackson	545	123	111	81	54	61	36	28	14	9	7	4	5	2
Jasper	246	60	46	46	26	19	12	11	11	1	.....	4	1	9
Jay	491	141	99	70	50	35	35	18	11	10	6	3	1	12
Jefferson	259	70	50	48	23	21	16	11	8	7	1	2	2	.....
Jennings	287	81	51	46	34	27	18	12	6	2	3	5	1	1
Johnson	241	77	39	33	23	19	11	8	5	8	5	2	2	9
Knox	683	177	128	106	67	70	43	34	25	14	6	3	5	5
Kosciusko	369	135	65	60	36	28	20	9	4	6	3	1	2	.....
Lagrange	238	75	50	33	20	16	15	5	7	5	6	.....	1	5
Lake	363	88	97	82	40	35	13	4	3	1	.....	.....	.....	.....
Laporte	663	176	129	107	65	59	26	25	24	14	6	10	6	16
Lawrence	446	115	81	81	55	38	29	14	13	10	2	4	3	1
Madison	1,632	473	355	237	189	124	71	63	36	35	13	11	11	14
Marion	3,743	1,236	811	559	385	241	166	124	85	55	24	19	22	16
Marshall	377	103	74	49	52	32	24	17	6	1	3	5	5	6
Martin	216	53	37	37	28	16	14	8	10	6	3	.....	3	1
Miami	339	102	64	45	31	35	24	14	8	6	4	1	5	.....
Monroe	329	87	77	53	27	28	20	14	9	6	3	2	3	.....
Montgomery	542	146	118	98	66	38	33	23	9	3	2	2	2	2
Morgan	310	110	57	53	28	18	10	9	6	2	3	2	2	10

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Newton	207	49	38	28	17	15	13	11	6	2	2	3	2	21
Noble	339	99	72	56	38	27	16	11	7	4	2	3	3	1
Ohio	115	31	20	19	13	7	10	2	6	1	.....	3	2	1
Orange	222	68	42	40	25	19	9	7	9	2	.....	1	.....	.....
Owen	336	89	66	56	31	27	19	16	12	5	6	2	5	2
Parke	200	53	50	32	14	15	9	12	5	2	2	2	.....	4
Perry	369	83	65	72	50	24	23	17	13	9	3	2	7	1
Pike	356	87	74	48	43	33	20	21	11	6	3	4	2	4
Porter	215	42	39	44	24	19	12	11	7	7	1	3	3	3
Posey	495	131	102	78	62	26	24	26	15	11	8	4	6	2
Pulaski	81	18	18	12	12	10	1	.....	2	3	.....	1	3	1
Putnam	480	138	93	76	66	40	19	21	12	3	6	2	2	2
Randolph	555	157	128	82	56	38	40	23	11	9	2	2	5	2
Ripley	331	98	57	57	35	24	21	17	5	7	7	2	1	.....
Rush	333	85	79	49	51	25	11	14	8	2	5	.....	3	1
Scott	147	33	31	19	23	12	7	1	10	3	2	1	.....	5
Shelby	382	113	64	68	53	28	13	13	13	6	3	2	3	3
Spencer	256	62	53	51	31	17	16	8	5	3	2	2	1	5
Starke	150	42	29	16	8	14	14	7	7	7	4	.....	2	.....
Steuben	237	68	46	45	31	9	6	4	3	2	4	.....	1	18
St. Joseph	546	157	113	92	59	36	30	17	12	8	6	4	6	6
Sullivan	457	104	72	55	47	24	28	14	9	.....	1	1	2	.....
Switzerland	170	51	36	23	24	5	9	3	5	3	.....	2	1	8
Tippecanoe	402	120	93	46	46	33	22	11	10	7	4	3	.....	7
Tipton	380	91	71	66	54	25	24	18	7	3	6	6	3	6
Union	99	30	20	18	7	11	2	4	3	3	1	.....	.....	.....
Vanderburgh	1,319	341	293	200	139	104	94	39	42	24	20	7	8	8
Vermillion	231	59	45	40	35	15	15	7	9	3	.....	1	2	.....
Vigo	946	275	216	142	102	75	41	36	20	11	7	8	8	5
Wabash	272	73	54	46	34	25	17	7	7	6	1	.....	1	1
Warren	170	59	42	19	18	7	8	12	2	1	.....	1	1	.....
Warrick	362	115	60	52	26	16	26	11	13	8	3	.....	1	31
Washington	213	53	44	29	31	16	11	12	5	7	2	.....	1	2
Wayne	604	199	137	84	65	38	37	17	9	9	6	1	2	.....
Wells	273	79	52	50	38	18	13	6	8	3	2	1	2	1
White	408	98	77	66	47	34	36	22	12	4	6	3	3	.....
Whitley	289	88	75	45	30	12	14	9	5	2	.....	1	.....	8
Total	40,590	11,427	8,302	6,292	4,497	3,103	2,264	1,550	1,055	683	377	260	283	497

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TABLE B—Continued.

COUNTIES.	Grouped Ages of Parents.														Still Births.		Plurality Births.		Illegitimate Births.	
	Under 20.		20 to 30.		30 to 40.		40 to 50.		50 to 60.		60 to 70.	70 to 80.	Not Reported.							
	Father.	Mother.	Father.	Mother.	Father.	Mother.	Father.	Mother.	Father	Mother.	Father.	Father.	Father.	Mother.	Male.	Female.	Male.	Female.	Male.	Female.
Adams	3	37	174	251	191	148	84	35	8	....	2	....	12	3	14	4	7	9	5	3
Allen	4	61	336	477	388	355	184	84	23	....	3	....	111	72	12	12	11	11	15	16
Bartholomew	8	60	231	297	186	148	85	25	13	....	1	....	7	1	9	8	7	7	8	8
Benton	1	15	67	122	67	74	35	11	5	....	1	....	53	7	5	3	....	....	....	2
Blackford	1	38	144	182	149	113	42	10	10	1	....	....	5	7	6	1	6	4	3	3
Boone	6	53	249	341	212	150	89	30	13	....	....	....	18	13	12	4	2	2	....	5
Brown	1	26	79	90	56	45	26	8	3	....	....	....	28	24	1	....	2	2	2	1
Carroll	3	26	100	130	101	83	43	21	11	....	....	....	4	2	4	2	4	6	2	....
Cass	2	30	132	150	102	77	22	12	6	....	....	....	62	57	....	....	10	4	1	....
Clark	3	21	138	206	175	128	82	38	10	1	1	....	8	23	....	4	....	2	....	....
Clay	2	28	146	188	125	96	37	12	10	....	1	....	6	3	8	2	7	7	1	2
Clinton	5	54	196	267	173	120	86	30	12	....	....	....	5	5	1	1	2	....	3	2
Crawford	105	127	113	118	50	35	20	15	7	3	1	....	5	3	4	2	7	9	3	3
Daviess	2	63	281	362	265	236	124	42	22	....	2	....	8	1	2	7	11	15	6	5
Dearborn	2	29	113	152	119	113	70	28	10	....	....	....	25	17	2	7	....	2	2	6
Decatur	2	30	122	170	132	88	41	21	10	....	....	1	27	26	....	....	3	7	....	....
Dekalb	3	20	65	111	72	38	22	8	2	....	....	....	15	2	2	2	6	....	....	....
Delaware	21	149	427	537	398	274	123	41	24	2	....	....	12	2	3	1	12	16	2	6
Dubois	1	22	133	218	194	145	76	34	10	2	....	....	10	3	6	3	15	9	1	4
Elkhart	3	30	149	193	145	106	33	22	10	....	....	....	42	31	2	....	3	1	1	....
Fayette	9	22	98	63	65	41	16	16	....	1	....	....	1	46	1	1	....	2	1	2
Floyd	2	22	110	147	122	102	49	23	7	....	1	....	7	4	3	1	1	1	2	2
Fountain	4	33	142	165	113	71	43	16	6	3	2	....	3	25	7	7	3	5	2	....
Franklin	1	18	86	129	93	74	44	12	3	....	2	1	8	5	....	....	5	7	....	....
Fulton	5	39	136	162	89	73	44	16	11	....	1	....	7	3	2	5	2	2	3	9
Gibson	8	65	225	286	220	184	91	35	14	....	4	1	11	4	14	11	3	9	4	9
Grant	7	83	363	467	309	215	99	38	20	....	....	2	22	19	16	11	8	14	11	2
Greene	11	61	224	265	174	152	86	28	7	....	1	1	29	27	1	2	14	....	3	5

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Hamilton	6	56	220	278	206	168	66	26	26	....	....	....	7	3	9	8	13	9	8	6
Hancock	8	36	145	218	140	99	66	22	10	....	....	....	9	3	5	4	2	6	4	4
Harrison	4	30	165	204	157	145	69	31	11	....	1	1	7	5	7	6	....	4	2	2
Hendricks	2	40	160	209	129	81	37	18	10	....	1	....	9	....	6	3	1	1	....	3
Henry	49	2	315	238	132	205	33	62	....	14	....	1	....	9	5	7	5	3	6	2
Howard	7	26	229	210	118	120	11	9	....	....	....	....	148	148	....	....	1	1	....	....
Huntington	2	28	171	223	135	109	59	21	13	....	1	....	....	....	....	....	1	3	....	....
Jackson	2	44	168	267	227	165	102	45	17	6	1	2	16	8	15	14	10	10	5	7
Jasper	....	18	95	127	80	61	33	12	7	1	....	2	27	25	4	5	3	1	3	1
Jay	6	63	217	215	169	141	66	26	8	....	1	1	11	4	11	9	12	12	6	7
Jefferson	2	23	87	122	102	91	44	13	8	....	....	....	13	7	8	11	6	....	1	5
Jennings	....	27	107	145	109	91	53	19	11	....	....	....	5	3	3	3	2	2	2	4
Johnson	4	27	108	118	93	70	23	17	4	....	....	....	6	6	1	2	3	3	....	3
Knox	5	63	263	372	252	205	133	24	8	....	2	....	9	8	7	8	13	9	10	6
Kosciusko	4	47	157	205	142	92	54	19	3	....	....	....	8	5	4	1	2	....	8	5
Lagrange	1	15	90	121	90	69	27	13	6	....	....	....	21	17	3	3	3	3	2	....
Lake	19	155	216	150	117	40	11	18	....	....	....	....	....	....	....	....	....	....	....	....
Laporte	41	3	349	233	189	236	44	97	....	6	....	....	30	78	9	12	13	7	5	....
Lawrence	10	33	164	188	146	113	53	40	9	6	....	....	61	63	5	3	3	3	7	4
Madison	16	193	742	902	604	392	177	67	30	....	7	....	48	70	32	26	6	10	17	11
Marion	19	369	1,491	2,034	1,432	1,079	505	160	66	....	4	....	176	51	86	47	50	50	73	73
Marshall	3	40	148	188	136	121	65	19	8	....	1	....	13	6	3	3	6	....	....	3
Martin	2	25	93	119	70	57	33	12	7	....	1	....	7	....	5	....	3	3	....	1
Miami	2	37	123	171	117	87	60	22	6	....	1	....	21	13	8	5	8	10	3	4
Monroe	1	55	127	179	118	75	36	16	6	....	....	....	38	1	1	2	4	2	7	8
Montgomery	1	49	210	288	206	167	91	22	18	....	....	....	10	10	5	6	8	4	5	6
Morgan	4	57	133	129	75	74	35	10	9	....	4	....	46	36	....	1	3	4	3	5
Newton	....	15	66	88	69	62	33	12	6	....	....	....	29	26	....	....	5	3	....	....
Noble	....	29	127	160	124	103	64	17	8	....	....	....	10	24	4	4	6	5	2	....
Ohio	....	8	34	64	38	36	29	4	1	....	....	....	13	3	....	....	....	....	....	....
Orange	2	26	112	124	74	60	25	10	6	....	1	....	....	....	1	2	....	4	3	....
Owen	4	27	140	161	117	91	51	20	9	....	5	1	7	35	2	4	2	2	4	1
Parke	2	23	83	107	77	54	29	11	4	....	....	....	1	1	....	....	6	2	1	....
Perry	1	43	142	163	137	128	63	26	9	....	1	....	15	8	7	7	1	1	5	3
Pike	7	47	149	184	119	91	44	13	7	....	....	1	20	12	3	....	5	13	6	8
Porter	....	19	73	105	87	73	37	13	14	....	....	....	1	2	1	....	5	1	....	....
Posey	4	45	187	273	198	151	89	17	9	1	....	....	2	2	6	7	9	3	1	1
Pulaski	1	3	29	48	30	23	14	4	3	1	....	....	4	2	3	1	....	....	1	1
Putnam	2	49	203	254	179	146	61	20	13	....	1	....	14	4	10	12	5	9	5	4
Randolph	....	49	256	327	205	148	62	21	5	....	....	....	23	6	1	1	5	3	7	4
Ripley	2	15	68	96	60	65	49	8	4	....	2	....	145	146	1	1	2	....	2	1
Rush	2	19	124	187	141	109	50	16	7	....	....	....	8	1	1	1	1	1	5	2
Scott	....	15	61	70	40	44	28	7	1	....	....	1	12	7	....	2	1	7	1	1

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TABLE B—Continued.

COUNTIES.	Grouped Ages of Parents.														Still Births.		Plurality Births.		Illegitimate Births.	
	Under 20.		20 to 30.		30 to 40.		40 to 50.		50 to 60.		60 to 70.	70 to 80.	Not Reported.							
	Father.	Mother.	Father.	Mother.	Father.	Mother.	Father.	Mother.	Father.	Mother.	Father.	Father.	Father.	Mother.	Male.	Female.	Male.	Female.	Male.	Female.
Shelby	4	33	163	208	134	109	63	28	10	....	2	....	3	1	3	2	3	3	4	5
Spencer	1	23	96	141	106	74	34	8	5	....	....	....	9	5	1	.....	6	4	3	1
Starke	.....	18	48	49	34	33	22	10	6	....	....	....	39	19	1	2	2	.....	.....	.....
Steuben	2	18	81	115	91	60	19	14	1	....	....	....	40	27	2	2	4	1	1	2
St. Joseph	3	42	208	302	244	153	60	34	12	....	2	....	13	11	9	9	4	4	.....	5
Sullivan	6	60	201	164	73	82	32	15	8	....	....	....	37	36	2	.....	.....	.....	2	3
Switzerland	2	9	66	84	60	49	18	8	2	....	....	1	24	17	.....	2	3	3	2	.....
Tippecanoe	2	31	159	223	164	123	52	14	11	1	....	....	9	5	3	3	5	5	4	2
Tipton	15	66	157	192	131	94	52	19	7	....	1	....	11	3	6	2	5	7	5	5
Union	2	7	40	48	35	34	21	9	.....	....	....	1	.....	1	.....	.....	.....	.....	.....	.....
Vanderburgh	13	100	278	967	734	214	200	16	19	2	3	....	60	8	19	12	17	6	25	29
Vermillion	.....	15	82	123	96	74	29	8	7	....	....	1	12	7	4	2	6	2	3	3
Vigo	11	107	386	504	351	272	122	39	27	....	5	....	34	14	16	18	7	13	16	12
Wabash	8	36	118	128	103	83	38	23	1	....	....	....	3	1	.....	.....	2	.....	5	1
Warren	10	18	79	95	54	45	20	11	2	1	....	....	5	.....	1	1	.....	.....	1	1
Warrick	2	77	164	159	89	66	24	10	5	....	1	....	73	46	5	4	6	2	2	1
Washington	1	8	86	94	85	83	37	22	1	....	....	....	.....	3	.....	.....	3	3	.....	1
Wayne	5	44	262	356	230	172	76	25	14	1	1	....	12	2	8	9	6	2	11	6
Wells	6	31	147	148	92	73	22	17	1	....	....	....	5	4	.....	.....	.....	.....	.....	.....
White	1	39	148	203	162	133	69	18	6	....	2	....	11	6	2	.....	6	12	1	2
Whitley	1	26	163	148	91	93	18	10	1	....	....	1	9	7	4	4	5	5	.....	.....
Total	567	4,063	16,251	20,991	14,830	11,340	5,538	2,148	840	53	75	20	2,010	1,536	505	404	475	439	386	370

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TABLE C.

Marriages by Months, Color and Nationality for Year Ending September 30, 1900.

COUNTIES.	1899.			1900.									Color.		Nationality.						Total.
															American.		Foreign.		Not Reported.		
	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	White.	Colored.	Grooms.	Brides.	Grooms.	Brides.	Grooms.	Brides.	
Adams	22	20	25	23	17	12	13	8	15	8	20	20	203	....	194	198	7	4	2	1	203
Allen	62	45	77	48	71	53	60	36	81	41	43	34	649	2	586	645	62	46	3	....	651
Bartholomew	20	12	25	9	13	18	16	23	18	13	17	12	195	1	191	191	5	2	....	3	196
Benton	8	10	16	20	12	4	9	7	2	6	3	10	107	....	98	103	8	3	1	1	107
Blackford	19	17	28	22	19	21	15	12	15	11	14	8	201	....	188	191	13	10	....	....	201
Boone	20	24	21	25	24	23	18	14	16	14	26	14	236	3	239	238	....	1	....	....	239
Brown	8	4	5	10	11	3	10	6	1	3	8	8	77	....	24	24	....	....	53	53	77
Carroll	17	14	22	31	13	9	14	8	6	12	13	18	177	....	173	174	4	3	....	....	177
Cass	34	39	15	18	24	11	25	20	15	24	23	9	256	1	150	145	66	57	41	55	257
Clark	63	150	125	....	....	....	125	135	123	123	153	162	1,025	134	531	519	26	20	602	620	1,159
Clay	....	....	....	....	....	....	27	22	35	8	18	29	136	3	126	130	12	8	1	1	139
Clinton	20	26	30	29	25	23	29	23	20	16	19	26	286	....	286	286	....	....	....	....	286
Crawford	11	15	11	17	17	11	12	13	15	18	11	4	155	....	132	140	16	10	7	5	155
Daviess	29	22	12	26	17	9	4	17	8	21	12	12	182	7	186	189	3	....	....	....	189
Dearborn	28	16	18	18	8	11	18	19	18	16	17	17	202	2	197	199	6	2	1	3	204
Decatur	23	16	13	8	12	20	13	22	11	12	12	18	180	....	174	180	6	....	....	....	180
Dekalb	21	28	22	23	21	24	25	14	23	14	8	22	245	....	240	241	5	4	....	...	245
Delaware	89	47	24	72	43	29	41	38	51	37	30	21	518	4	515	512	7	10	....	....	522
Dubois	18	18	14	14	13	12	16	30	10	6	11	16	178	....	172	178	5	....	1	....	178
Elkhart	35	39	36	38	25	10	47	30	30	33	21	26	370	....	310	322	40	27	20	21	370
Fayette	13	13	6	2	9	6	8	4	9	3	8	6	81	6	84	85	3	1	....	1	87
Floyd	39	23	21	20	19	17	31	29	23	29	40	25	282	34	298	307	13	5	5	4	316
Fountain	18	18	31	22	17	15	12	23	43	13	14	16	239	3	237	241	5	1	....	....	242
Franklin	20	15	17	7	7	....	10	23	10	9	10	15	143	....	137	142	6	1	....	....	143
Fulton	12	18	27	17	12	20	13	9	14	10	11	11	170	4	161	160	....	1	13	13	174

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TABLE C—Continued.

COUNTIES.	1899.			1900.									Color.		Nationality.						Total.
															American.		Foreign.		Not Reported.		
	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	White.	Colored.	Grooms.	Brides.	Grooms.	Brides.	Grooms.	Brides.	
Gibson	29	29	25	17	21	12	14	29	22	24	25	18	254	11	264	263	....	1	1	1	265
Grant	67	53	61	52	39	56	45	27	61	48	44	44	583	14	580	584	14	9	3	4	597
Greene	35	34	29	16	9	15	18	19	23	15	15	25	252	1	248	250	2	....	3	3	253
Hamilton	43	28	41	24	20	13	37	16	26	22	26	24	311	9	307	308	11	7	2	5	320
Hancock	18	20	11	16	9	21	11	8	13	20	23	19	186	3	183	187	6	2	....	....	189
Harrison	5	18	16	6	1	11	10	4	16	9	21	17	130	4	134	116	....	....	....	18	134
Hendricks	30	21	13	11	8	6	20	6	6	18	9	14	160	2	157	160	1	....	4	2	162
Henry	31	28	27	33	23	21	21	19	20	23	19	25	284	6	286	286	3	1	1	3	290
Howard	34	27	26	29	26	25	31	13	18	21	23	24	295	2	297	297	....	....	....	....	297
Huntington	16	15	16	16	17	17	18	16	20	20	16	18	205	....	198	203	7	2	....	....	205
Jackson	25	36	23	22	29	26	20	17	17	18	19	24	273	3	267	272	5	2	4	2	276
Jasper	11	17	6	....	....	....	17	6	7	8	8	11	91	....	90	88	1	3	....	....	91
Jay	21	27	21	26	24	26	19	18	13	15	13	19	241	1	241	242	1	....	....	....	242
Jefferson	26	40	38	21	21	18	18	23	23	14	20	20	282	....	60	60	....	....	222	222	282
Jennings	19	7	5	20	7	18	14	7	7	9	12	8	130	3	126	128	5	4	2	1	133
Johnson	25	22	4	13	10	4	13	7	14	6	15	7	136	4	139	139	....	....	1	1	140
Knox	37	29	8	57	32	14	43	25	14	19	27	17	314	8	315	319	4	....	3	3	322
Kosciusko	33	30	46	28	22	38	36	27	11	17	24	20	331	1	325	330	7	2	....	....	332
Lagrange	10	12	4	18	10	12	12	6	10	4	6	15	119	....	116	119	3	....	....	....	119
Lake	38	49	47	18	33	26	22	18	20	37	32	36	375	1	291	299	85	77	....	....	376
Laporte	37	38	21	17	23	13	17	28	29	18	21	27	287	2	240	252	46	29	3	8	289
Lawrence	22	19	19	19	16	14	19	19	20	21	11	19	210	8	218	218	....	....	....	....	218
Madison	66	66	49	112	59	50	70	56	51	108	54	46	770	17	728	740	56	42	3	5	787
Marion	218	166	95	141	104	75	175	145	128	122	121	69	1,371	188	1,449	1,464	103	74	7	21	1,551
Marshall	16	18	21	21	16	18	23	23	18	15	15	17	221	....	216	220	5	1	....	....	229
Martin	13	8	9	6	11	....	11	7	3	7	9	8	92	....	76	80	16	12	....	....	92
Miami	38	26	27	....	....	....	17	19	13	28	11	15	193	1	187	188	5	3	2	3	194
Monroe	16	18	15	13	15	26	14	10	14	13	18	15	183	4	184	186	3	....	....	1	187

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Montgomery	39	27	30	35	19	17	31	16	14	21	14	13	272	4	272	274	4	2	....	....	276
Morgan	21	20	16	7	10	8	12	8	10	22	22	11	166	1	164	165	1	....	2	2	167
Newton	13	10	14	9	9	8	9	7	8	9	6	4	106	....	99	99	5	5	2	2	106
Noble	21	25	16	17	12	19	20	12	19	9	13	9	192	....	188	164	4	....	....	28	192
Ohio	5	6	5	6	6	5	3	3	2	3	5	3	50	2	48	49	4	3	....	....	52
Orange	22	11	11	21	13	20	8	12	14	11	6	14	163	....	163	163	....	....	....	....	163
Owen	28	18	20	16	18	28	24	16	22	30	22	14	254	2	153	159	6	....	97	97	256
Parke	21	15	14	13	11	17	19	14	26	9	12	18	187	2	184	184	5	5	....	....	189
Perry	17	10	8	19	21	24	18	8	31	17	8	14	190	5	181	183	14	12	....	....	195
Pike	23	21	12	16	16	16	20	7	6	15	12	16	180	....	179	179	1	....	....	1	180
Porter	13	6	8	17	6	9	11	14	19	8	18	8	137	....	125	132	12	5	....	....	137
Posey	33	19	19	13	10	21	17	11	16	17	25	16	201	16	214	216	2	....	1	1	217
Pulaski	11	7	6	14	13	6	6	3	5	10	5	10	96	....	86	93	9	3	1	....	98
Putnam	35	19	24	15	25	13	21	11	18	9	12	14	211	5	211	216	4	....	....	....	216
Randolph	29	18	37	33	13	31	23	21	21	9	26	21	280	2	282	282	....	....	....	....	282
Ripley	19	16	20	24	10	12	11	13	14	15	13	12	179	....	.....	.....	....	....	179	179	179
Rush	24	15	12	11	17	7	6	9	9	14	19	14	153	4	157	157	....	....	....	....	157
Scott	2	6	8	....	6	3	3	6	4	8	5	9	60	....	60	60	....	....	....	....	60
Shelby	4	1	7	26	10	15	26	17	16	22	21	21	183	3	184	186	2	....	....	....	186
Spencer	29	22	18	27	16	20	24	17	13	24	17	27	245	9	117	117	....	....	137	137	254
Starke	9	12	11	13	7	9	5	4	7	11	2	8	98	....	77	74	18	22	3	2	98
Steuben	14	17	10	21	8	12	10	12	8	13	12	12	149	....	146	149	3	....	....	....	149
St. Joseph	54	60	21	44	26	25	37	51	29	37	42	27	447	6	372	372	81	80	....	1	453
Sullivan	34	43	24	59	15	18	23	12	13	16	16	15	296	2	233	238	27	22	28	28	288
Switzerland	17	21	17	16	14	14	13	5	8	6	12	10	147	6	153	153	....	....	....	....	153
Tippecanoe	45	36	31	26	32	25	29	23	39	20	19	20	334	11	332	332	12	19	1	4	345
Tipton	39	28	28	20	11	19	17	14	7	17	19	15	233	1	231	230	1	....	2	4	234
Union	4	2	6	2	9	1	4	....	4	2	11	6	51	....	51	51	....	....	....	....	51
Vanderburgh	60	79	87	142	122	54	24	74	72	19	64	91	793	95	483	489	175	158	230	241	888
Vermillion	9	14	11	12	8	10	7	19	12	9	12	14	133	4	124	129	11	7	2	1	137
Vigo	89	71	67	51	60	57	63	40	61	52	47	76	708	26	680	697	52	35	2	2	734
Wabash	31	23	20	37	29	15	16	20	20	12	16	21	260	....	360	260	....	....	....	....	260
Warren	9	10	11	11	8	7	9	7	7	8	17	10	114	....	74	67	11	9	29	38	114
Warrick	18	24	29	32	12	15	25	30	12	16	22	31	255	11	193	228	22	8	51	30	266
Washington	18	14	26	10	12	19	18	7	10	8	16	18	176	....	176	176	....	....	....	....	176
Wayne	39	45	46	30	26	31	29	36	26	24	29	23	369	15	371	374	11	8	2	2	384
Wells	17	38	27	25	20	13	30	13	17	16	14	12	242	....	224	226	13	11	5	5	242
White	19	22	14	19	17	11	19	11	8	3	8	12	163	....	.....	.....	....	....	163	163	163
Whitley	20	14	17	11	5	9	6	12	9	10	18	17	148	....	147	146	1	2	....	....	148
Total	2,582	2,415	2,172	2,211	1,756	1,599	2,092	1,818	1,905	1,780	1,896	1,886	23,333	729	20,946	21,157	1,218	903	1,948	2,052	24,112

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TABLE D.

Marriages, Grouped Ages, for the Year Ending September 30, 1900.

COUNTIES.	Grouped Ages.																		Total.
	Under 20.		20 to 30.		30 to 40.		40 to 50.		50 to 60.		60 to 70.		70 to 80.		Over 80.		Not Reported.		
	Grooms.	Brides.	Grooms.	Brides.	Grooms.	Brides.	Grooms.	Brides.	Grooms.	Brides.	Grooms.	Brides.	Grooms.	Brides.	Grooms.	Brides.	Grooms.	Brides.	
Adams	2	60	145	119	40	13	8	8	4	1	3						1	2	203
Allen	4	120	452	421	126	80	43	21	17	5	7	3					2	1	651
Bartholomew	2	53	140	111	31	20	13	7	5	4	5	1							196
Benton	1	16	69	50	20	7	9			1	3	1		1			5	31	107
Blackford	10	73	150	105	32	18	5	2	2	2	1	1	1						201
Boone	4	73	171	120	36	28	12	8	10	4	4	4	2					2	239
Brown																	77	77	77
Carroll	6	59	126	91	19	15	7	7	4	1	4	1	2	2			9	1	177
Cass	3	50	176	166	44	26	18	7	10	4	4	1					2	3	257
Clark	5	154	443	361	102	53	24	12	11	2	3						571	577	1,159
Clay	4	43	103	86	23	6	5	3	3		1	1							139
Clinton	8	86	194	143	47	34	21	12	10	6	5	4	1					1	286
Crawford	103	112	28	24	12	11	6	5	5	2	1							1	155
Daviess		55	126	107	39	14	10	10	10	1	2	1	1				1	1	189
Dearborn	3	36	125	124	47	27	17	12	9	2	1		1		1			3	204
Decatur	3	51	111	91	37	21	14	9	9	5	3	2					3	1	180
Dekalb	8	49	175	135	32	11	10	14	13	4	4	1	3					31	215
Delaware	12	127	367	298	84	59	37	23	13	10	6	2	3					3	522
Dubois	3	31	126	122	30	14	11	7	5	2	2	2	1						178
Elkhart	4	69	261	247	73	33	14	13	12	5	5	1	1					2	370
Fayette	1	23	57	51	17	9	6	2	4	1		1	1				1		87
Floyd	3	72	199	192	75	33	23	9	7	2	4	2	1				4	6	316
Fountain	2	57	164	139	42	29	17	12	9	2	5	2	1	1			2		242
Franklin	1	27	85	94	43	14	3	4	3	4	2		1				1		143
Fulton	3	44	120	88	11	10	11	6	2	2	2	3	1				21	21	174

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Gibson	8	70	191	156	46	25	13	8	3	2	3	1	1	....	....	....	....	3	265
Grant	9	166	410	310	103	73	41	23	18	9	9	2	3	....	....	1	4	13	597
Greene	10	93	180	124	38	21	12	6	5	4	3	1	1	....	....	....	4	4	253
Hamilton	3	75	227	193	62	31	9	12	11	3	3	2	4	2	....	....	1	2	320
Hancock	5	51	128	104	32	22	15	9	4	1	4	1	....	....	....	....	1	1	189
Harrison	3	39	97	74	23	16	7	1	1	2	1	....	....	1	1	....	1	1	134
Hendricks	7	37	104	82	32	17	8	7	6	2	4	2	1	....	....	....	1	15	162
Henry	3	78	214	170	37	22	19	13	14	4	1	1	....	....	....	....	2	2	290
Howard	....	20	212	192	61	61	13	14	7	8	2	....	1	....	....	....	1	2	297
Huntington	8	45	145	125	32	22	13	6	6	3	4	1	1	1	....	....	1	2	205
Jackson	3	64	194	164	38	24	19	13	11	7	8	3	3	1	....	....	....	....	276
Jasper	2	23	63	39	14	8	5	1	4	1	1	1	2	1	....	....	....	17	91
Jay	2	68	177	139	34	20	9	7	14	6	2	1	1	1	1	....	2	....	242
Jefferson	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	282	282	282
Jennings	....	30	94	84	23	10	9	5	2	1	4	....	....	....	....	....	1	3	133
Johnson	3	29	89	88	28	10	9	6	6	4	3	1	1	....	....	....	1	2	140
Knox	10	106	220	139	56	29	21	6	8	2	5	1	....	....	....	....	2	39	322
Kosciusko	8	96	233	189	55	22	19	16	13	3	4	4	....	....	....	....	....	2	332
Lagrange	4	25	74	68	18	8	8	4	2	2	2	1	1	....	....	....	10	11	119
Lake	5	196	302	167	69	9	....	....	....	....	....	....	....	....	....	....	....	4	376
Laporte	3	45	130	123	91	74	39	17	11	3	2	2	1	....	....	....	12	25	289
Lawrence	6	57	148	121	37	25	19	12	5	2	3	1	....	....	....	....	....	....	218
Madison	18	250	508	376	137	83	59	48	46	18	11	5	1	1	3	....	4	6	787
Marion	16	265	956	951	387	236	124	70	43	24	20	6	7	....	....	....	6	7	1,559
Marshall	17	84	141	102	39	16	7	11	7	1	7	6	2	1	....	....	1	....	221
Martin	6	35	59	48	16	6	5	1	3	1	2	....	1	....	....	....	....	1	92
Miami	2	53	129	106	41	22	13	10	6	2	2	....	1	1	....	....	....	....	194
Monroe	8	60	129	105	30	14	9	3	7	3	2	1	....	....	....	....	2	1	187
Montgomery	2	68	197	165	50	20	11	11	5	6	7	4	2	....	....	....	2	2	276
Morgan	5	58	120	84	23	9	6	9	9	4	2	3	2	....	....	....	....	....	167
Newton	1	34	83	63	13	4	4	2	1	3	2	....	....	....	....	....	2	....	106
Noble	1	46	182	117	34	15	15	7	5	4	4	2	....	....	....	....	1	1	192
Ohio	4	12	33	31	11	6	....	....	2	2	1	....	....	....	....	....	1	1	52
Orange	9	58	112	78	24	19	6	4	11	3	....	....	1	1	....	....	....	....	163
Owen	6	33	83	76	28	11	6	5	3	....	2	3	1	....	....	....	127	128	256
Parke	3	58	120	94	41	25	9	5	11	5	1	....	1	1	....	....	3	1	189
Perry	8	57	132	106	32	19	10	7	7	3	4	1	....	....	....	....	2	2	195
Pike	5	47	122	105	29	16	14	8	10	4	....	....	....	....	....	....	....	....	180
Porter	2	28	93	93	28	13	5	1	5	1	3	1	....	....	1	....	....	....	187
Posey	3	70	142	115	42	21	14	7	6	2	3	1	1	....	....	....	....	1	217
Pulaski	1	21	60	58	20	7	7	6	6	3	2	1	....	....	....	....	....	....	96
Putnam	3	53	152	123	31	21	16	11	8	2	4	4	2	....	....	....	....	2	216
Randolph	9	92	208	156	38	13	11	11	4	7	6	1	4	1	....	....	2	1	282

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TABLE D.

Marriages, Grouped Ages, for the Year Ending September 30, 1900.

COUNTIES.	Grouped Ages.																		Total.
	Under 20.		20 to 30.		30 to 40.		40 to 50.		50 to 60.		60 to 70.		70 to 80.		Over 80.		Not Reported.		
	Grooms.	Brides.	Grooms.	Brides.	Grooms.	Brides.	Grooms.	Brides.	Grooms.	Brides.	Grooms.	Brides.	Grooms.	Brides.	Grooms.	Brides.	Grooms.	Brides.	
Adams	2	60	145	119	40	13	8	8	4	1	3	....	....	....	....	....	1	2	203
Allen	4	120	452	421	126	80	43	21	17	5	7	3	....	....	....	....	2	1	651
Bartholomew	2	53	140	111	31	20	13	7	5	4	5	1	....	....	....	....	....	....	196
Benton	1	16	69	50	20	7	9	....	....	1	3	1	....	1	....	....	5	31	107
Blackford	10	73	150	105	32	18	5	2	2	2	1	1	1	....	....	....	....	....	201
Boone	4	73	171	120	36	28	12	8	10	4	4	4	2	....	....	....	....	2	239
Brown	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	77	77	77
Carroll	6	59	126	91	19	15	7	7	4	1	4	1	2	2	....	....	9	1	177
Cass	3	50	176	166	44	26	18	7	10	4	4	1	....	....	....	....	2	3	257
Clark	5	154	443	361	102	53	24	12	11	2	3	....	....	....	....	....	571	577	1,159
Clay	4	43	103	86	23	6	5	3	3	....	1	1	....	....	....	....	....	....	139
Clinton	8	86	194	143	47	34	21	12	10	6	5	4	1	....	....	....	....	1	286
Crawford	103	112	28	24	12	11	6	5	5	2	1	....	....	....	....	....	....	1	155
Daviess	....	55	126	107	39	14	10	10	10	1	2	1	1	....	....	....	1	1	189
Dearborn	3	36	125	124	47	27	17	12	9	2	1	....	1	....	1	....	....	3	204
Decatur	3	51	111	91	37	21	14	9	9	5	3	2	....	....	....	....	3	1	180
Dekalb	8	49	175	135	32	11	10	14	13	4	4	1	3	....	....	....	....	31	215
Delaware	12	127	367	298	84	59	37	23	13	10	6	2	3	....	....	....	....	3	522
Dubois	3	31	126	122	30	14	11	7	5	2	2	2	1	....	....	....	....	....	178
Elkhart	4	69	261	247	73	33	14	13	12	5	5	1	1	....	....	....	....	2	370
Fayette	1	23	57	51	17	9	6	2	4	1	....	1	1	....	....	....	1	....	87
Floyd	3	72	199	192	75	33	23	9	7	2	4	2	1	....	....	....	4	6	316
Fountain	2	57	164	139	42	29	17	12	9	2	5	2	1	1	....	....	2	....	242
Franklin	1	27	85	94	43	14	3	4	3	4	2	....	1	....	....	....	1	....	143
Fulton	3	44	120	88	11	10	11	6	2	2	2	3	1	....	....	....	21	21	174

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Gibson	8	70	191	156	46	25	13	8	3	2	3	1	1					3	265
Grant	9	166	410	310	103	73	41	23	18	9	9	2	3			1	4	13	597
Greene	10	93	180	124	38	21	12	6	5	4	3	1	1				4	4	253
Hamilton	3	75	227	193	62	31	9	12	11	3	3	2	4	2			1	2	320
Hancock	5	51	128	104	32	22	15	9	4	1	4	1					1	1	189
Harrison	3	39	97	74	23	16	7	1	1	2	1			1	1		1	1	134
Hendricks	7	37	104	82	32	17	8	7	6	2	4	2	1				1	15	162
Henry	3	78	214	170	37	22	19	13	14	4	1	1					2	2	290
Howard		20	212	192	61	61	13	14	7	8	2		1				1	2	297
Huntington	8	45	145	125	32	22	13	6	6	3	4	1	1	1			1	2	205
Jackson	3	64	194	164	38	24	19	13	11	7	8	3	3	1					276
Jasper	2	23	63	39	14	8	5	1	4	1	1	1	2	1				17	91
Jay	2	68	177	139	34	20	9	7	14	6	2	1	1	1	1		2		242
Jefferson																	282	282	282
Jennings		30	94	84	23	10	9	5	2	1	4						1	3	133
Johnson	3	29	89	88	28	10	9	6	6	4	3	1	1				1	2	140
Knox	10	106	220	139	56	29	21	6	8	2	5	1					2	39	322
Kosciusko	8	96	233	189	55	22	19	16	13	3	4	4						2	332
Lagrange	4	25	74	68	18	8	8	4	2	2	2	1	1				10	11	119
Lake	5	196	302	167	69	9												4	376
Laporte	3	45	130	123	91	74	39	17	11	3	2	2	1				12	25	289
Lawrence	6	57	148	121	37	25	19	12	5	2	3	1							218
Madison	18	250	508	376	137	83	59	48	46	18	11	5	1	1	3		4	6	787
Marion	16	265	956	951	387	236	124	70	43	24	20	6	7				6	7	1,559
Marshall	17	84	141	102	39	16	7	11	7	1	7	6	2	1			1		221
Martin	6	35	59	48	16	6	5	1	3	1	2		1					1	92
Miami	2	53	129	106	41	22	13	10	6	2	2		1	1					194
Monroe	8	60	129	105	30	14	9	3	7	3	2	1					2	1	187
Montgomery	2	68	197	165	50	20	11	11	5	6	7	4	2				2	2	276
Morgan	5	58	120	84	23	9	6	9	9	4	2	3	2						167
Newton	1	34	83	63	13	4	4	2	1	3	2						2		106
Noble	1	46	182	117	34	15	15	7	5	4	4	2					1	1	192
Ohio	4	12	33	31	11	6			2	2	1						1	1	52
Orange	9	58	112	78	24	19	6	4	11	3			1	1					163
Owen	6	33	83	76	28	11	6	5	3		2	3	1				127	128	256
Parke	3	58	120	94	41	25	9	5	11	5	1		1	1			3	1	189
Perry	8	57	132	106	32	19	10	7	7	3	4	1					2	2	195
Pike	5	47	122	105	29	16	14	8	10	4									180
Porter	2	28	93	93	28	13	5	1	5	1	3	1			1				137
Posey	3	70	142	115	48	21	14	7	6	2	3	1	1					1	217
Pulaski	1	21	60	58	20	7	7	6	6	3	2	1							96
Putnam	3	53	152	123	31	21	16	11	8	2	4	4	2					2	216
Randolph	9	92	208	156	38	13	11	11	4	7	6	1	4	1			2	1	282

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TABLE D.

Marriages, Grouped Ages, for the Year Ending September 30, 1900.

COUNTIES.	Grouped Ages.																		Total.
	Under 20.		20 to 30.		30 to 40.		40 to 50.		50 to 60.		60 to 70.		70 to 80.		Over 80.		Not Reported.		
	Grooms.	Brides.	Grooms.	Brides.	Grooms.	Brides.	Grooms.	Brides.	Grooms.	Brides.	Grooms.	Brides.	Grooms.	Brides.	Grooms.	Brides.	Grooms.	Brides.	
Adams	2	60	145	119	40	13	8	8	4	1	3	.....	.....	.....	.....	.....	1	2	203
Allen	4	120	452	421	126	80	43	21	17	5	7	3	.....	.....	.....	.....	2	1	651
Bartholomew	2	53	140	111	31	20	13	7	5	4	5	1	.....	.....	.....	.....	.....	.....	196
Benton	1	16	69	50	20	7	9	.....	.....	1	3	1	.....	1	.....	.....	5	31	107
Blackford	10	73	150	105	32	18	5	2	2	2	1	1	1	.....	.....	.....	.....	.....	201
Boone	4	73	171	120	36	28	12	8	10	4	4	4	2	.....	.....	.....	.....	2	239
Brown	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	77	77	77
Carroll	6	59	126	91	19	15	7	7	4	1	4	1	2	2	.....	.....	9	1	177
Cass	3	50	176	166	44	26	18	7	10	4	4	1	.....	.....	.....	.....	2	3	257
Clark	5	154	443	361	102	53	24	12	11	2	3	.....	.....	.....	.....	.....	571	577	1,159
Clay	4	43	103	86	23	6	5	3	3	.....	1	1	.....	.....	.....	.....	.....	.....	139
Clinton	8	86	194	143	47	34	21	12	10	6	5	4	1	.....	.....	.....	.....	1	286
Crawford	103	112	28	24	12	11	6	5	5	2	1	.....	.....	.....	.....	.....	.....	1	155
Daviess	.....	55	126	107	39	14	10	10	10	1	2	1	1	.....	.....	.....	1	1	189
Dearborn	3	36	125	124	47	27	17	12	9	2	1	.....	1	.....	1	.....	.....	3	204
Decatur	3	51	111	91	37	21	14	9	9	5	3	2	.....	.....	.....	.....	3	1	180
Dekalb	8	49	175	135	32	11	10	14	13	4	4	1	3	.....	.....	.....	.....	31	245
Delaware	12	127	367	298	84	59	37	23	13	10	6	2	3	.....	.....	.....	.....	3	522
Dubois	3	31	126	122	30	14	11	7	5	2	2	2	1	.....	.....	.....	.....	.....	178
Elkhart	4	69	261	247	73	33	14	13	12	5	5	1	1	.....	.....	.....	.....	2	370
Fayette	1	23	57	51	17	9	6	2	4	1	.....	1	1	.....	.....	.....	1	.....	87
Floyd	3	72	199	192	75	33	23	9	7	2	4	2	1	.....	.....	.....	4	6	316
Fountain	2	57	164	139	42	29	17	12	9	2	5	2	1	1	.....	.....	2	.....	242
Franklin	1	27	85	94	43	14	3	4	3	4	2	.....	1	.....	.....	.....	1	.....	143
Fulton	3	44	120	88	11	10	11	6	2	2	2	3	1	.....	.....	.....	21	21	174

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Gibson	8	70	191	156	46	25	13	8	3	2	3	1	1	....	....	....	....	3	265
Grant	9	166	410	310	103	73	41	23	18	9	9	2	3	....	....	1	4	13	597
Greene	10	93	180	124	38	21	12	6	5	4	3	1	1	....	....	....	4	4	253
Hamilton	3	75	227	193	62	31	9	12	11	3	3	2	4	2	....	....	1	2	320
Hancock	5	51	128	104	32	22	15	9	4	1	4	1	....	....	....	....	1	1	189
Harrison	3	39	97	74	23	16	7	1	1	2	1	....	....	1	1	....	1	1	134
Hendricks	7	37	104	82	32	17	8	7	6	2	4	2	1	....	....	....	1	15	162
Henry	3	78	214	170	37	22	19	13	14	4	1	1	....	....	....	....	2	2	290
Howard	....	20	212	192	61	61	13	14	7	8	2	....	1	....	....	....	1	2	297
Huntington	8	45	145	125	32	22	13	6	6	3	4	1	1	1	....	....	1	2	205
Jackson	3	64	194	164	38	24	19	13	11	7	8	3	3	1	....	....	....	....	276
Jasper	2	23	63	39	14	8	5	1	4	1	1	1	2	1	....	....	....	17	91
Jay	2	68	177	139	34	20	9	7	14	6	2	1	1	1	1	....	2	....	242
Jefferson	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	282	282	282
Jennings	....	30	94	84	23	10	9	5	2	1	4	....	....	....	....	....	1	3	133
Johnson	3	29	89	88	28	10	9	6	6	4	3	1	1	....	....	....	1	2	140
Knox	10	106	220	139	56	29	21	6	8	2	5	1	....	....	....	....	2	39	322
Kosciusko	8	96	233	189	55	22	19	16	13	3	4	4	....	....	....	....	....	2	332
Lagrange	4	25	74	68	18	8	8	4	2	2	2	1	1	....	....	....	10	11	119
Lake	5	196	302	167	69	9	....	....	....	....	....	....	....	....	....	....	....	4	376
Laporte	3	45	130	123	91	74	39	17	11	3	2	2	1	....	....	....	12	25	289
Lawrence	6	57	148	121	37	25	19	12	5	2	3	1	....	....	....	....	....	....	218
Madison	18	250	508	376	137	83	59	48	46	18	11	5	1	1	3	....	4	6	787
Marion	16	265	956	951	387	236	124	70	43	24	20	6	7	....	....	....	6	7	1,559
Marshall	17	84	141	102	39	16	7	11	7	1	7	6	2	1	....	....	1	....	221
Martin	6	35	59	48	16	6	5	1	3	1	2	....	1	....	....	....	....	1	92
Miami	2	53	129	106	41	22	13	10	6	2	2	....	1	1	....	....	....	....	194
Monroe	8	60	129	105	30	14	9	3	7	3	2	1	....	....	....	....	2	1	187
Montgomery	2	68	197	165	50	20	11	11	5	6	7	4	2	....	....	....	2	2	276
Morgan	5	58	120	84	23	9	6	9	9	4	2	3	2	....	....	....	....	....	167
Newton	1	34	83	63	13	4	4	2	1	3	2	....	....	....	....	....	2	....	106
Noble	1	46	182	117	34	15	15	7	5	4	4	2	....	....	....	....	1	1	192
Ohio	4	12	33	31	11	6	....	....	2	2	1	....	....	....	....	....	1	1	52
Orange	9	58	112	78	24	19	6	4	11	3	....	....	1	1	....	....	....	....	163
Owen	6	33	83	76	28	11	6	5	3	....	2	3	1	....	....	....	127	128	256
Parke	3	58	120	94	41	25	9	5	11	5	1	....	1	1	....	....	3	1	189
Perry	8	57	132	106	32	19	10	7	7	3	4	1	....	....	....	....	2	2	195
Pike	5	47	122	105	29	16	14	8	10	4	....	....	....	....	....	....	....	....	180
Porter	2	28	93	93	28	13	5	1	5	1	3	1	....	....	1	....	....	....	137
Posey	3	70	142	115	42	21	14	7	6	2	3	1	1	....	....	....	....	1	217
Pulaski	1	21	60	58	20	7	7	6	6	3	2	1	....	....	....	....	....	....	96
Putnam	3	53	152	123	31	21	16	11	8	2	4	4	2	....	....	....	....	2	216
Randolph	9	92	208	156	38	13	11	11	4	7	6	1	4	1	....	....	2	1	282

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TABLE D—Continued.

COUNTIES.	Grouped Ages.																		Total.
	Under 20.		20 to 30.		30 to 40.		40 to 50.		50 to 60.		60 to 70.		70 to 80.		Over 80.		Not Reported.		
	Grooms.	Brides.	Grooms.	Brides.	Grooms.	Brides.	Grooms.	Brides.	Grooms.	Brides.	Grooms.	Brides.	Grooms.	Brides.	Grooms.	Brides.	Grooms.	Brides.	
Ripley	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	179	179	179
Rush	4	37	107	91	30	23	11	2	2	2	2	1	1	1	.....	.....	.....	.....	157
Scott	4	25	40	27	8	6	4	2	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	60
Shelby	12	58	121	102	32	16	12	4	5	3	1	2	1	1	1	.....	1	.....	186
Spencer	6	81	171	143	51	17	14	12	9	1	2	.....	.....	.....	.....	.....	1	.....	254
Starke	2	33	61	53	22	7	6	2	1	1	1	2	1	.....	.....	.....	4	.....	98
Steuben	2	36	102	78	26	24	7	1	8	6	3	2	1	.....	.....	.....	.....	2	149
St. Joseph	15	153	313	233	81	47	16	10	8	6	6	1	3	1	.....	.....	11	2	453
Sullivan	6	100	200	143	35	19	23	15	11	4	1	2	1	.....	.....	.....	11	5	288
Switzerland	4	57	117	88	25	5	5	2	1	1	1	.....	.....	.....	.....	.....	.....	.....	153
Tippecanoe	.....	57	230	226	61	26	31	17	15	8	8	.....	.....	.....	.....	.....	.....	11	345
Tipton	18	101	148	90	39	24	14	12	10	3	2	2	2	1	.....	.....	1	1	234
Union	.....	6	33	37	12	4	2	.....	.....	1	2	1	.....	2	2	.....	.....	.....	51
Vanderburgh	4	100	222	545	379	53	74	14	23	6	11	.....	5	.....	.....	.....	170	170	888
Vermillion	6	54	86	57	32	17	7	3	3	3	1	.....	.....	1	.....	.....	2	2	137
Vigo	15	179	450	404	175	100	46	31	36	16	6	2	3	.....	.....	.....	3	2	734
Wabash	6	64	181	166	56	16	13	11	1	2	2	.....	.....	.....	.....	.....	1	1	260
Warren	1	27	59	44	15	10	4	4	5	2	.....	.....	1	.....	.....	.....	29	27	114
Warrick	6	118	179	84	47	37	17	8	8	.....	1	.....	1	.....	.....	.....	7	19	266
Washington	4	33	99	86	20	17	13	4	6	4	3	2	2	1	.....	.....	29	29	176
Wayne	9	73	236	232	91	49	22	19	15	6	5	1	3	.....	.....	.....	3	4	384
Wells	6	60	171	140	48	31	10	5	1	.....	1	1	.....	.....	.....	.....	5	5	242
White	2	39	114	100	35	11	8	2	.....	1	1	1	1	1	.....	.....	2	8	163
Whitley	4	33	110	92	15	13	14	5	4	3	.....	.....	.....	.....	.....	.....	1	2	148
Total	557	5,959	15,010	12,749	4,425	2,302	1,375	821	709	318	293	119	94	26	10	1	1,639	1,817	24,112

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MORTALITY STATISTICS ANALYSIS FOR CERTAIN DISEASES.

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ACCURATE MORTALITY STATISTICS ARE NOW SECURED.

The law of 1899 makes possible the collection of accurate mortality statistics, and this is the first report of the Indiana State Board of Health which records accurate figures concerning deaths in the State.

The law requires that dead human bodies shall not be buried, cremated or placed in vaults or otherwise disposed of until a permit is obtained from some Health Officer or deputy, and no Health Officer shall issue a burial permit until he has in hand a certificate and record of the death, properly filled out and signed by the physician in attendance, if any, otherwise by a Health Officer, coroner or the householder where the death occurred. The form of the certificate and record of death, also the form of burial permit, also the forms of all other blanks necessary for the collection of accurate mortality statistics are left by the law to the State Board.

The penalty for burial without a permit is a fine of not less than ten nor more than one hundred dollars, and in addition the body shall be disinterred and an inquest held.

The penalty for refusal or neglect of attending physician, or householder where the death occurred, to make report on the form furnished by the State Board is not less than ten nor more than one hundred dollars; and the same fine lies against any officer who issues a burial permit without first having in hand the properly filled and signed certificate and record. All Health Officers are required to report to the State Board by the 5th of each month for the month preceding, sending to the State Board the certificates and records of death upon which burial permits have been issued. Failure to do this subjects the officer to fine and possibly dismissal.

The law was put into operation October 1, 1899. This date was taken because it had heretofore been accepted as the beginning of

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the statistical year of the Board. The tables and analyses herewith presented are therefore for the year ending September 30, 1900. Having now a ruling from the Attorney-General that it would be lawful to do so, the State Board will hereafter, commencing the first of this century, January 1, 1901, make all tables and analyses of mortality statistics for the calendar year. This will make it necessary to print separately the fraction of a year composed of the last quarter of 1900, and therefore the mortality tables for October, November and December, 1900, are given as an appendix to our mortality report.

GENERAL ANALYSIS OF MORTALITY IN INDIANA FOR THE YEAR ENDING SEPTEMBER 30, 1900.

The total number of deaths reported was 35,516. The number under one year of age was 7,766, or 21.8 per cent. of the total; one to two years, 1,565, or 4.4 per cent. of the total; two to three years, 792, or 2.23 per cent.; three to four years, 447, or 1.25 per cent.; four to five, 353, or 0.99 per cent. There thus appears a marked increasing expectancy after one year of age; at five the expectancy decreases; for from five to ten years the deaths numbered 1,059, or 2.9 per cent. of the total. An increased expectancy appears from ten to fifteen years, the number of deaths being 761, or 2.1 per cent. of the total; but again from fifteen to twenty years a decrease appears, the deaths numbering 1,377, or 3.8 per cent. of the total; and this decrease continues from twenty to twenty-five years, the deaths for this period numbering 1,621, or 4.5 per cent. of the total. An increased expectancy appears after 25 years, for from twenty-five to thirty years the deaths numbered 1,456, or 4.07 per cent. of the total. This increase continues as follows: Thirty to thirty-five years, deaths 1,326, or 3.7 per cent.; thirty-five to forty, deaths, 1,287, or 3.6 per cent.; forty to forty-five, deaths, 1,194, or 3.37 per cent. After this the expectancy decreases as follows: Forty-five to fifty years, deaths, 1,204, or 3.39 per cent. of the total; fifty to fifty-five, deaths, 1,281, or 3.6 per cent.; fifty-five to sixty, deaths, 1,493, or 4.2 per cent.; sixty to sixty-five, deaths, 1,627, or 4.58 per cent.; sixty-five to seventy, deaths, 1,980, or 5.57 per cent.; seventy to seventy-five, deaths, 2,155, or 6.07 per cent.; seventy-five to eighty, deaths, 1,877, or

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5.28 per cent.; eighty years and over, 2,425, or 6.80 per cent. The rise in death rate beginning at fifteen years of age and continuing for a decade is plainly due to pulmonary tuberculosis, as appears in the analysis of deaths from this cause. The deaths of infants under one year of age, 7,766, or 21.8 per cent. of the total, unquestionably shows that a large percentage of Indiana mothers need instruction in the care of infants. As only a very small percentage of breast-fed infants die under one year of age, it is to be inferred that in Indiana in 1900 an unusually large number was bottle fed. It is to be hoped that the State Board of Health will some day be given the means for instructing the people in the very important matter of preserving infants from unnecessary death. As distributed between urban and rural, the deaths were: Urban, 12,736, a rate of 15; rural, 22,722, a rate of 13.4.

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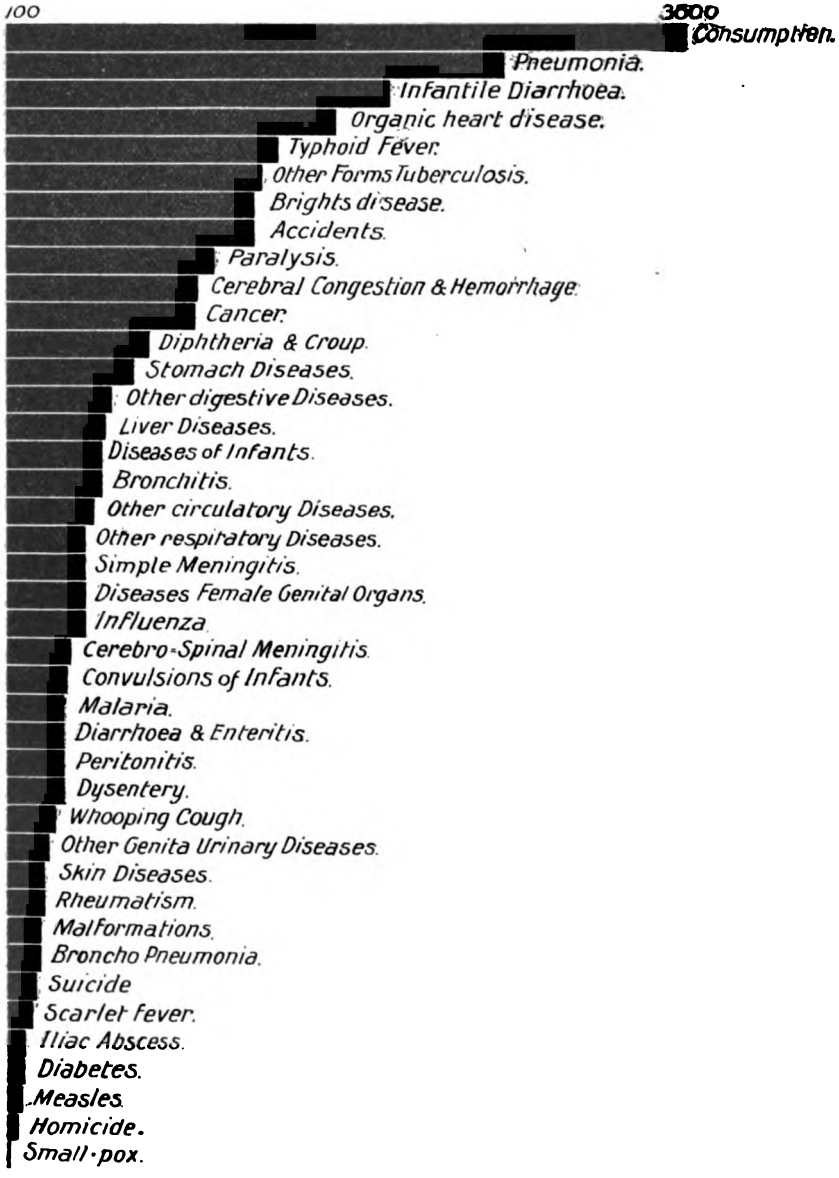
DIAGRAM SHOWING THE PRINCIPAL CAUSES OF DEATH DURING THE YEAR ENDING SEPTEMBER 30, 1900, IN THE ORDER OF THEIR IMPORTANCE.



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TUBERCULOSIS—ALL FORMS.

The total number of deaths reported from all forms of tuberculosis was 4,745. The number reported as caused by the pulmonary form was 3,164. The accompanying three diagrams show the deaths by months from all forms, also from the pulmonary form and by ages. The figures for all forms and for the pulmonary form and by ages will be found in the tables. It will be noticed from the diagram of *Tuberculosis—All Forms* how steadily this disease pursues its course. There is very little difference as regards the months.

DIAGRAM SHOWING DEATHS FROM ALL FORMS OF TUBERCULOSIS, YEAR ENDING SEPTEMBER 30, 1900.

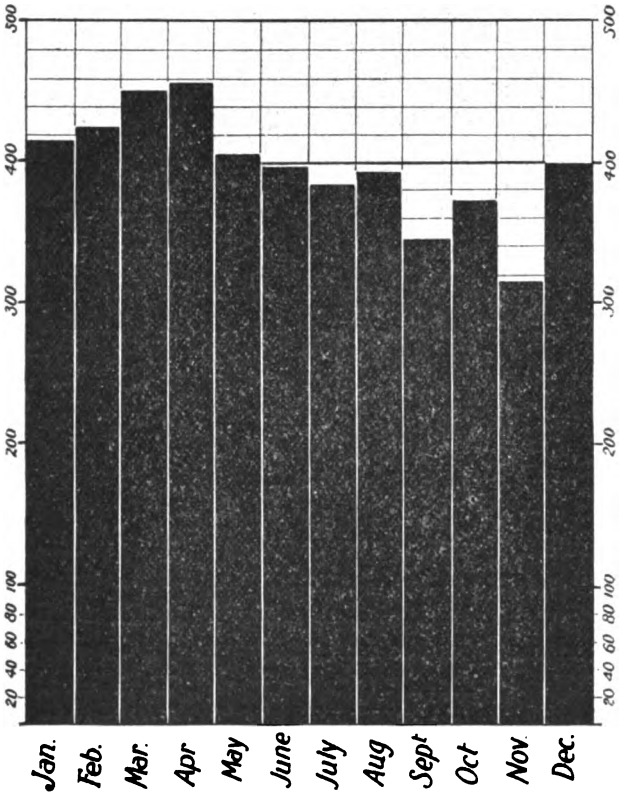

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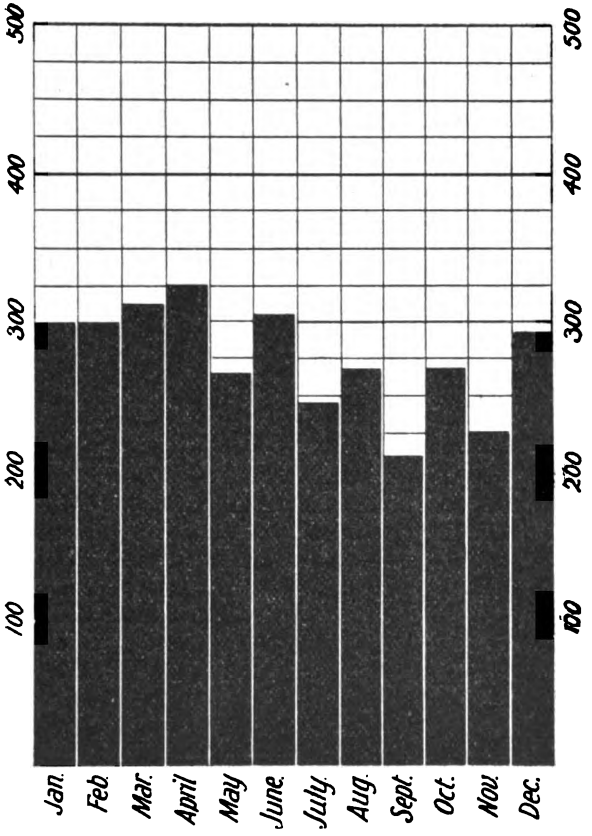
DIAGRAM SHOWING DEATHS FROM PULMONARY TUBERCULOSIS, YEAR ENDING SEPTEMBER 30, 1900, BY MONTHS.



PULMONARY TUBERCULOSIS.

The statistics of 1900 show that 3,164 persons died of pulmonary tuberculosis, this number being 9.47 per cent. of the total number of deaths, or 1 in every 10.5 deaths. Between the country and the cities the pulmonary tuberculosis deaths were divided as follows: Cities, 1,289; country, 1,875; the rates per 100,000 being respectively, 152.1 and 112.3. In this year, therefore, the cities suffered most from this disease.

When considered by ages, we find that the destruction by this disease is greatest from twenty to twenty-five, as 550 of the 3,164

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pulmonary tuberculosis deaths, or 17.3 per cent. were at this age. The next greatest period was from twenty-five to thirty, then comes thirty to thirty-five and then thirty-five to forty. Between twenty-five and forty there were 1,672 deaths, or 52.8 per cent. of the total. When it is remembered that twenty-five to forty is the most useful and productive period of life, we plainly see what a monstrous enemy we have to deal with in pulmonary tuberculosis.

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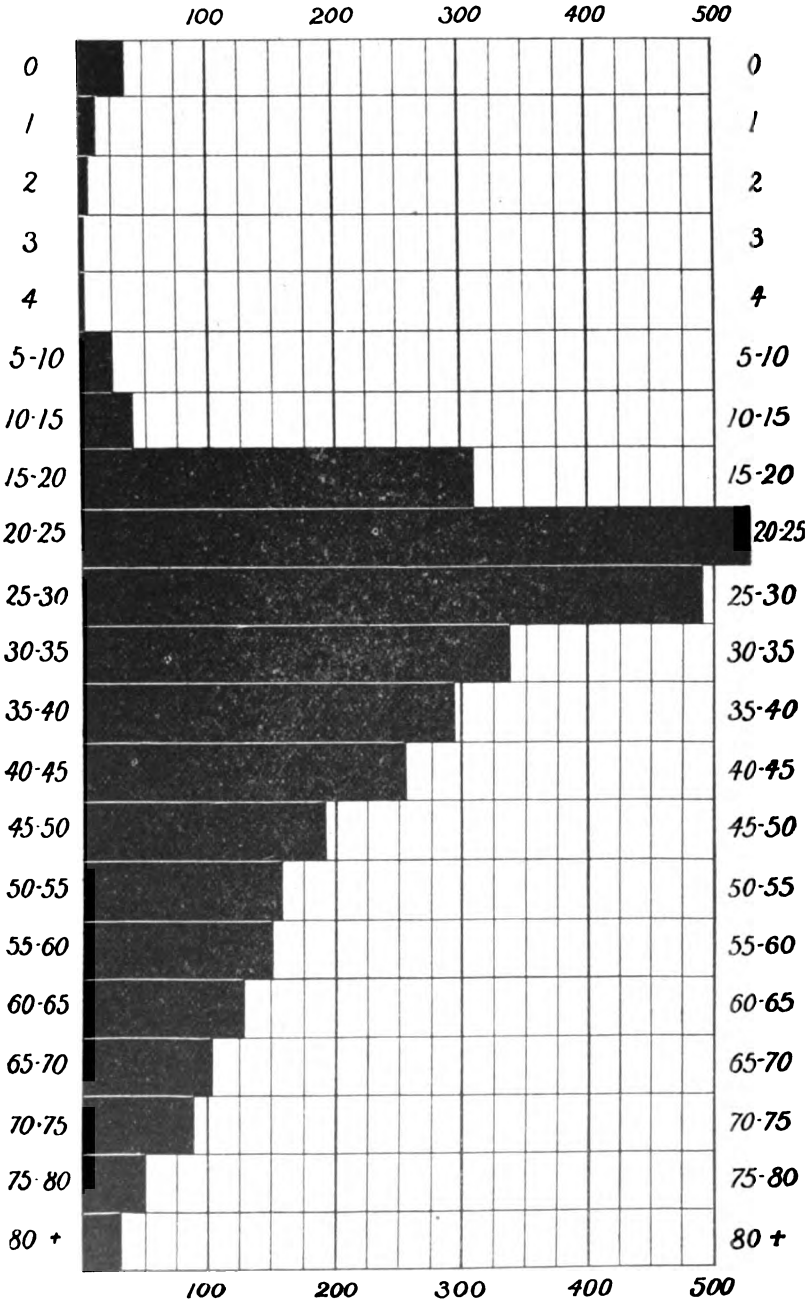
DIAGRAM SHOWING DEATHS FROM PULMONARY TUBERCULOSIS, BY AGES, YEAR ENDING SEPTEMBER 30, 1900.



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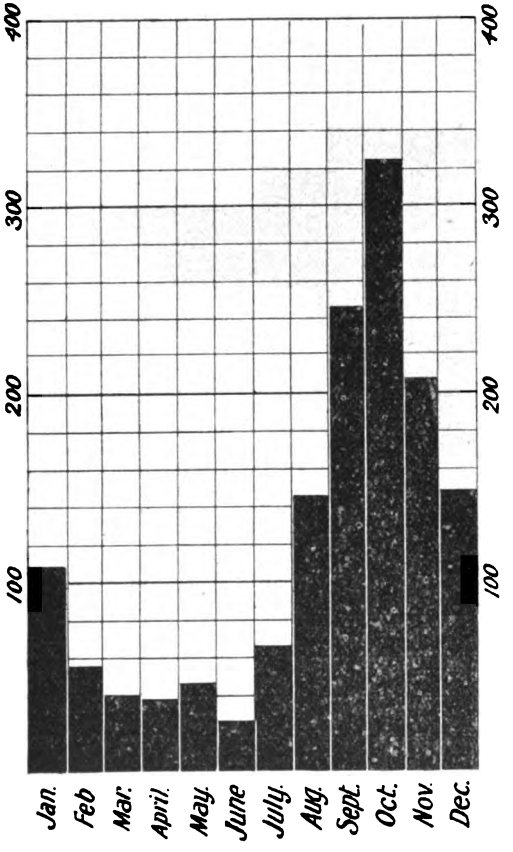
TYPHOID FEVER.

The number of deaths from typhoid in 1900 was 1,431, making a death rate of 56.8 per 100,000, or 4.03 per cent. of the total deaths. The diagram plainly shows the distribution as to ages, the highest rate being between fifteen and twenty years, and the next highest twenty to twenty-five. For the period fifteen to thirty, there were 540 typhoid deaths, or 38.2 per cent. of all those caused by the disease. The distribution as to rural and urban was: Urban, 412, a rate of 48.6 per 100,000; rural, 1,019, a rate of 61.

Diagram Showing Deaths from Typhoid Fever in Indiana, by Months, Year Ending September 30, 1900.



Typhoid is still autumnal fever in Indiana, for we record 243 deaths from it in September and 322 in October, making 565

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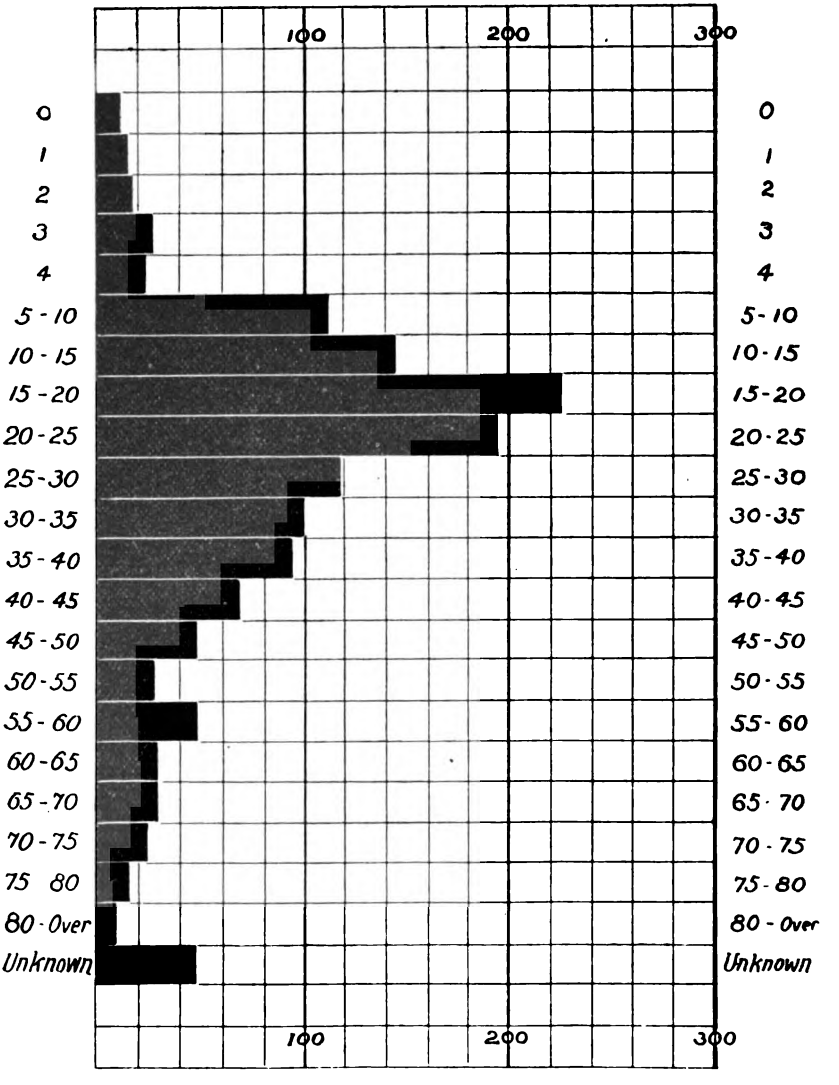
deaths for the two months, or 40 per cent. of the total typhoid deaths, and, if November is added, we record 785 deaths for the three months, or 54.8 per cent. of the total number. We are then fully aware in what months the slaughter from this filth disease is greatest.

DIAGRAM SHOWING DEATHS FROM TYPHOID FEVER IN INDIANA, BY AGES, YEAR ENDING SEPTEMBER 30, 1900.



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TYPHOID FEVER BY AGES.

After five years of age typhoid fever attacks become more frequent, increasing from ten to fifteen, and still further increasing from fifteen to twenty, and then a decline commences from twenty to twenty-five, but still during this period there are more deaths than for any other except fifteen to twenty. Between twenty-five and thirty, and up to forty, the disease is quite as destructive as for the period five to ten. After forty the fatalities of typhoid decline. The chances for having typhoid after fifty are very small. It is important to note that from fifteen to thirty, the very prime and blossom of life, is the most dangerous for this disease.

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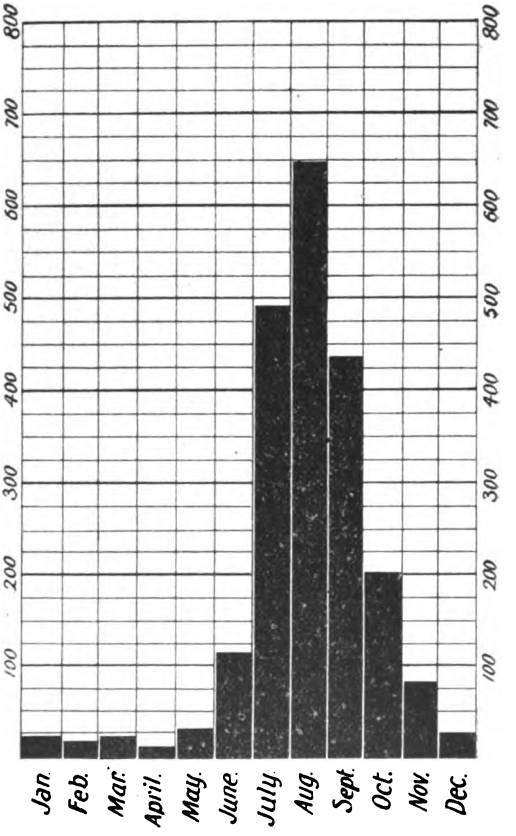
DIARRHEAL DISEASES.

The total deaths from diarrheal diseases of those under five years of age was 2,047, a rate of 81.3 per 100,000, or 5.7 per cent. of the total of all deaths. The following diagram shows that this class of diseases was most destructive in July, August and September, August showing the highest rate. As to urban and rural, we have to record for the former 721 deaths, a rate of 85 per 100,000, and for the latter 1,326, a rate of 78.2.

DIAGRAM SHOWING DEATHS FROM INFANTILE DIARRHEA IN INDIANA, BY MONTHS, YEAR ENDING SEPTEMBER 30, 1900.



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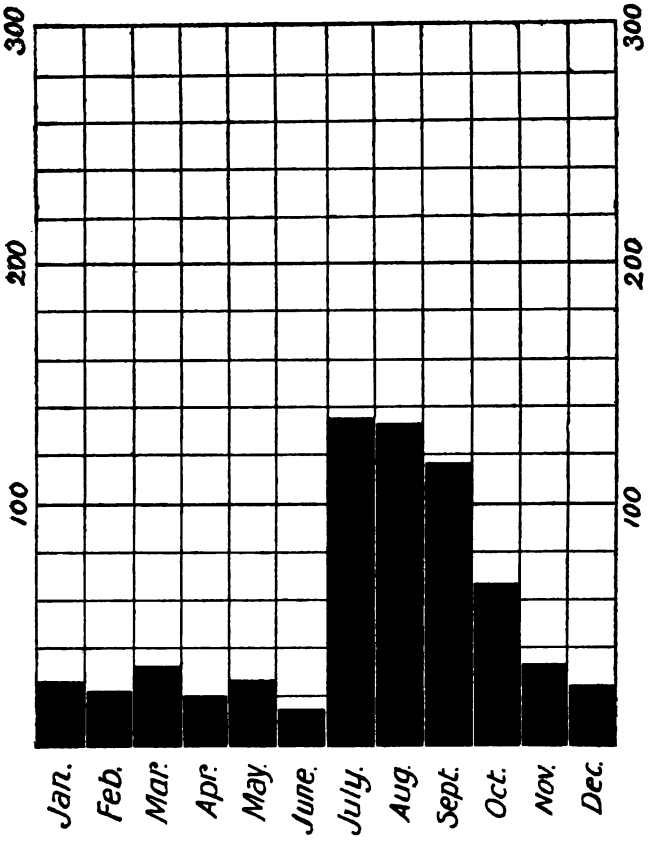
The deaths from diarrheal diseases in those above five years of age, and the distribution as to months are shown in the following diagram:

DIAGRAM SHOWING DEATHS FROM ENTERITIS AND DIARRHEA ABOVE FIVE YEARS OLD, IN INDIANA, BY MONTHS, YEAR ENDING SEPTEMBER 30, 1900.



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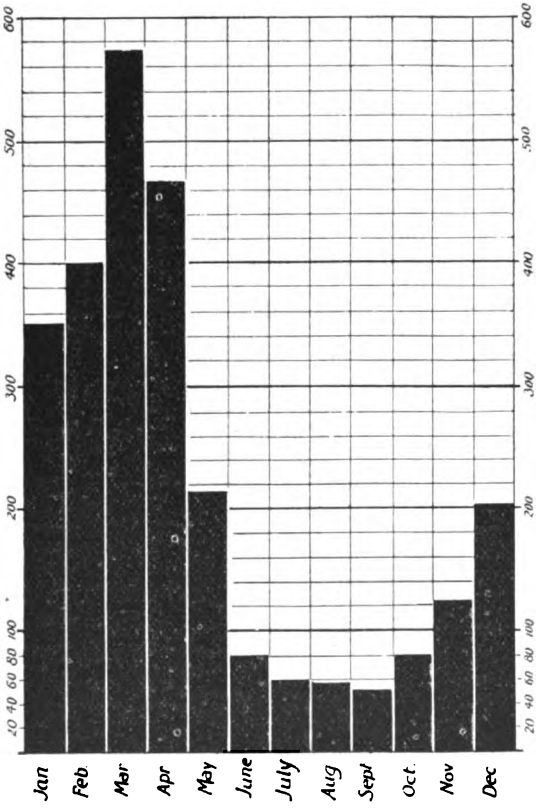
PNEUMONIA.

The total number of deaths from pneumonia in 1900 was 3,061. March showed the greatest number, namely, 401; the smallest occurred in September, namely, 61. The accompanying diagram shows the incidence of pneumonia deaths by months:

DIAGRAM SHOWING DEATHS FROM PNEUMONIA BY MONTHS, FOR YEAR ENDING SEPTEMBER 30, 1900.



PNEUMONIA DEATHS BY AGES.

In considering deaths from pneumonia by ages it appears that this disease was more destructive in 1900 in early infancy than at any other period, for there were 370 deaths from this cause under

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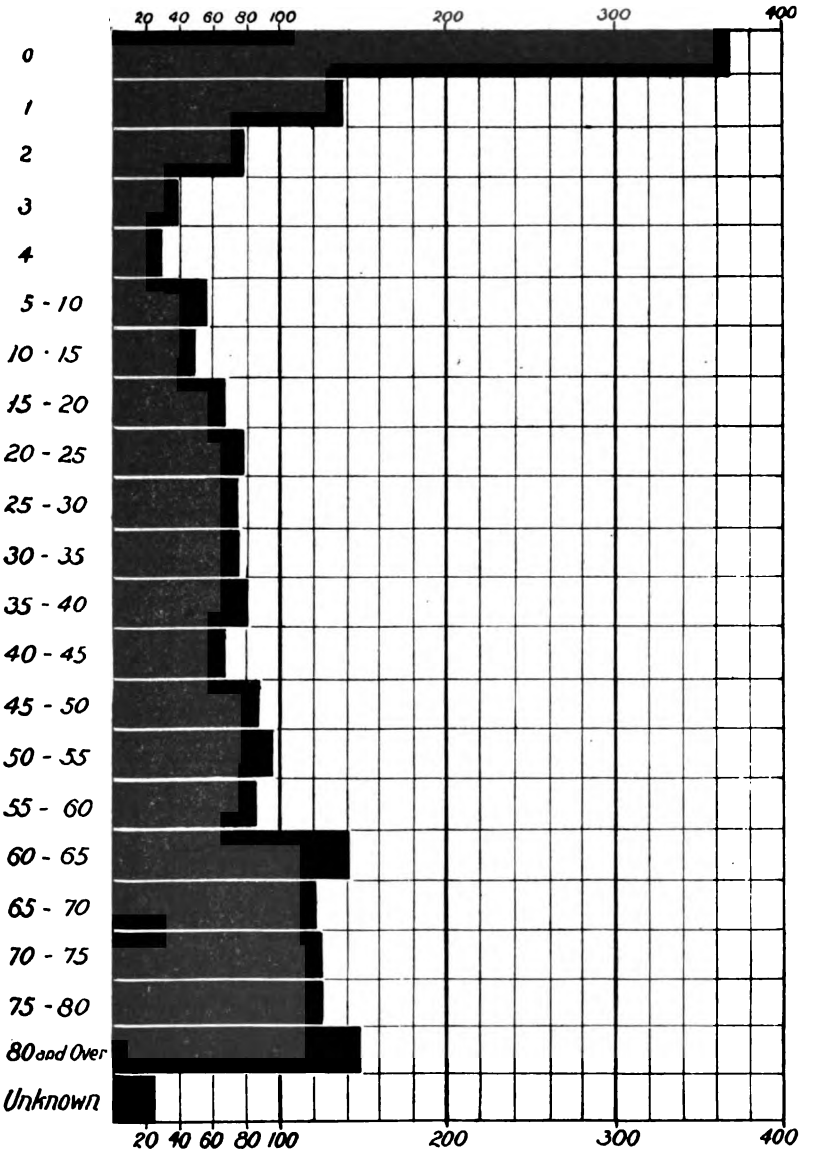
one year of age. The lowest mortality was between three and four years. For this year the pneumonia mortality was very nearly the same for one to two, sixty to sixty-five and eighty years and over.

DIAGRAM SHOWING DEATHS FROM PNEUMONIA BY AGES, FOR YEAR ENDING SEPTEMBER 30, 1900.



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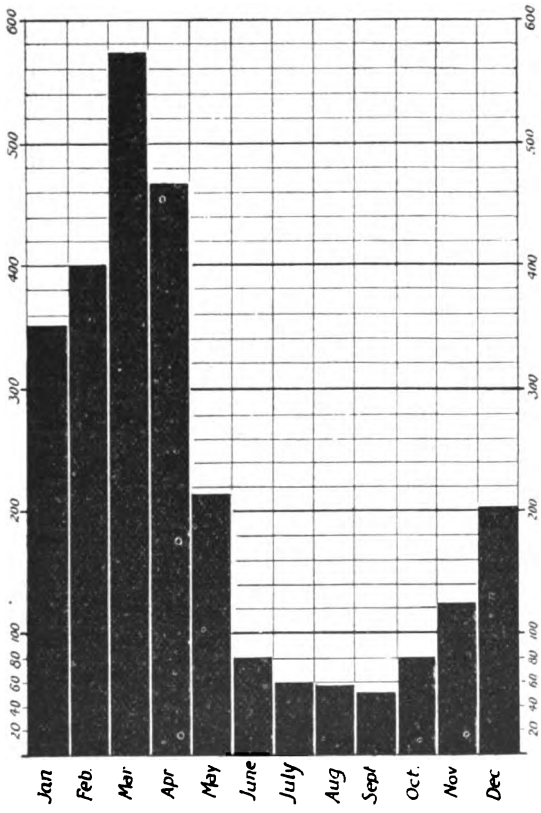
PNEUMONIA.

The total number of deaths from pneumonia in 1900 was 3,061. March showed the greatest number, namely, 401; the smallest occurred in September, namely, 61. The accompanying diagram shows the incidence of pneumonia deaths by months:

Diagram Showing Deaths From Pneumonia by Months, for Year Ending September 30, 1900.



PNEUMONIA DEATHS BY AGES.

In considering deaths from pneumonia by ages it appears that this disease was more destructive in 1900 in early infancy than at any other period, for there were 370 deaths from this cause under

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one year of age. The lowest mortality was between three and four years. For this year the pneumonia mortality was very nearly the same for one to two, sixty to sixty-five and eighty years and over.

DIAGRAM SHOWING DEATHS FROM PNEUMONIA BY AGES, FOR YEAR ENDING SEPTEMBER 30, 1900.

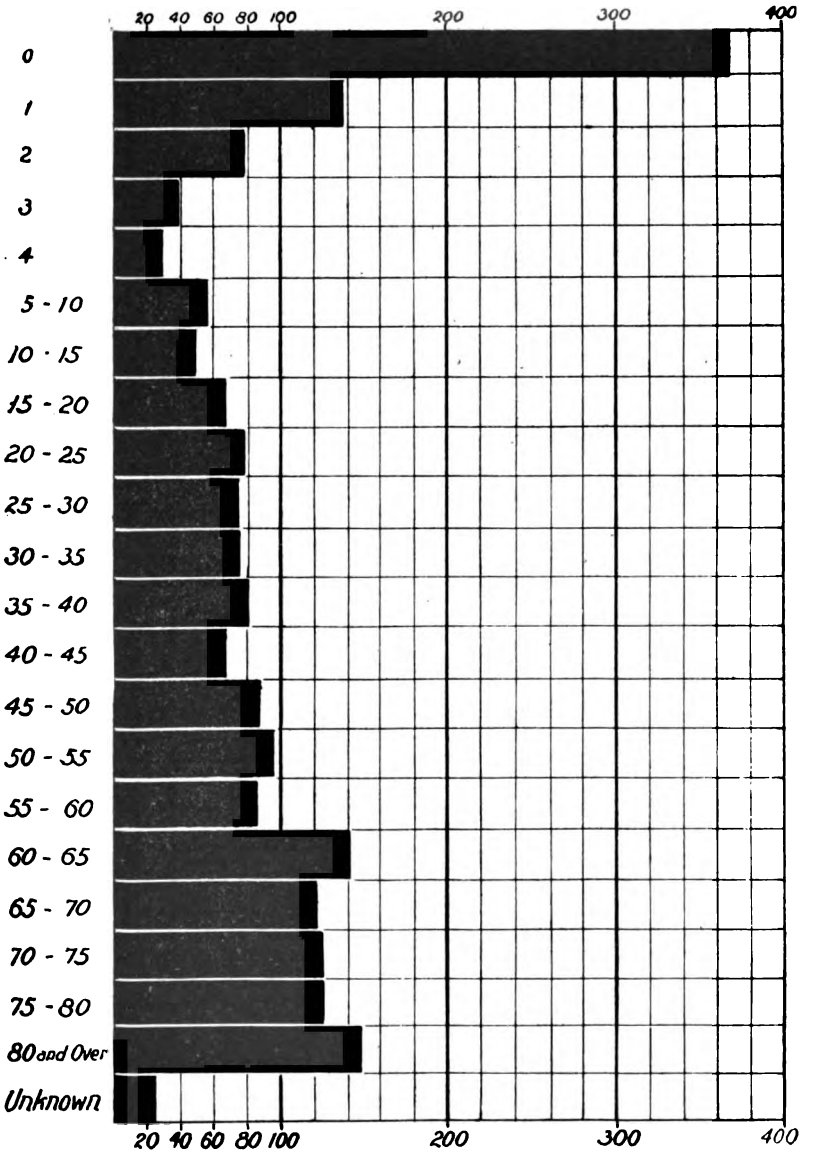

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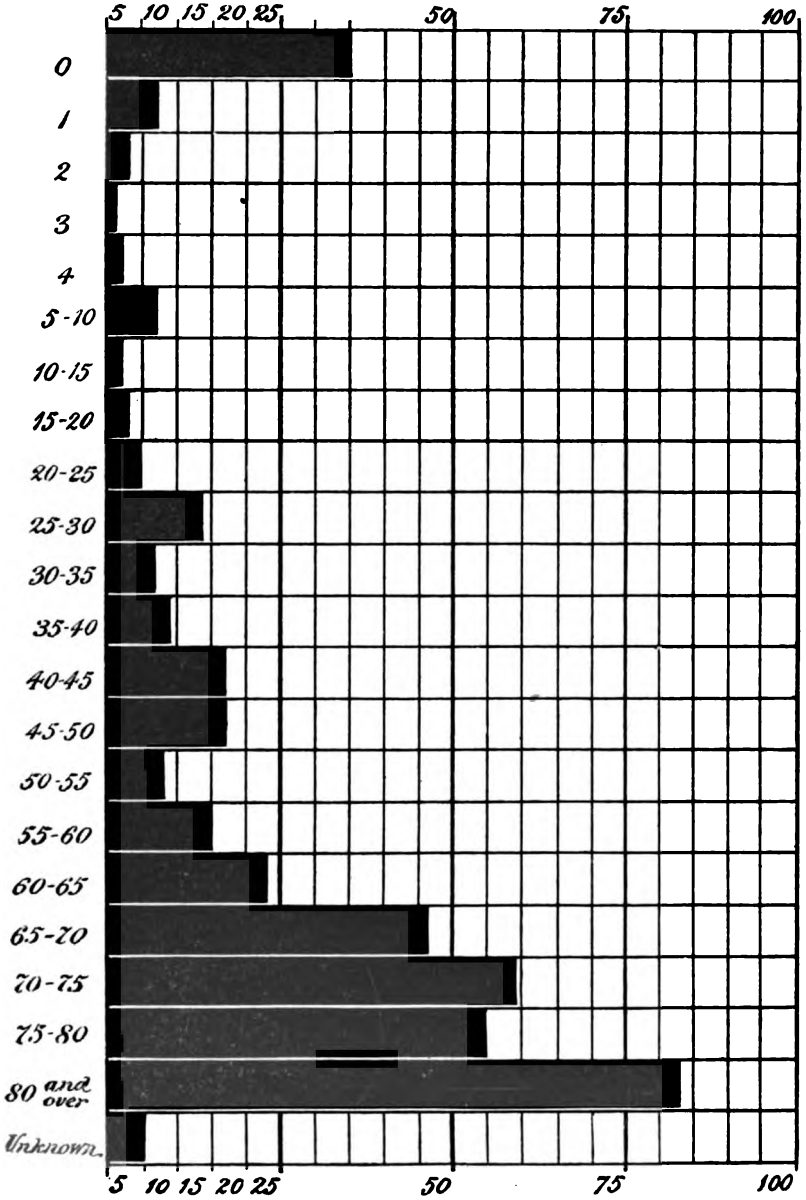
DIAGRAM SHOWING DEATHS FROM INFLUENZA BY AGES, FOR YEAR ENDING SEPTEMBER 30, 1900.



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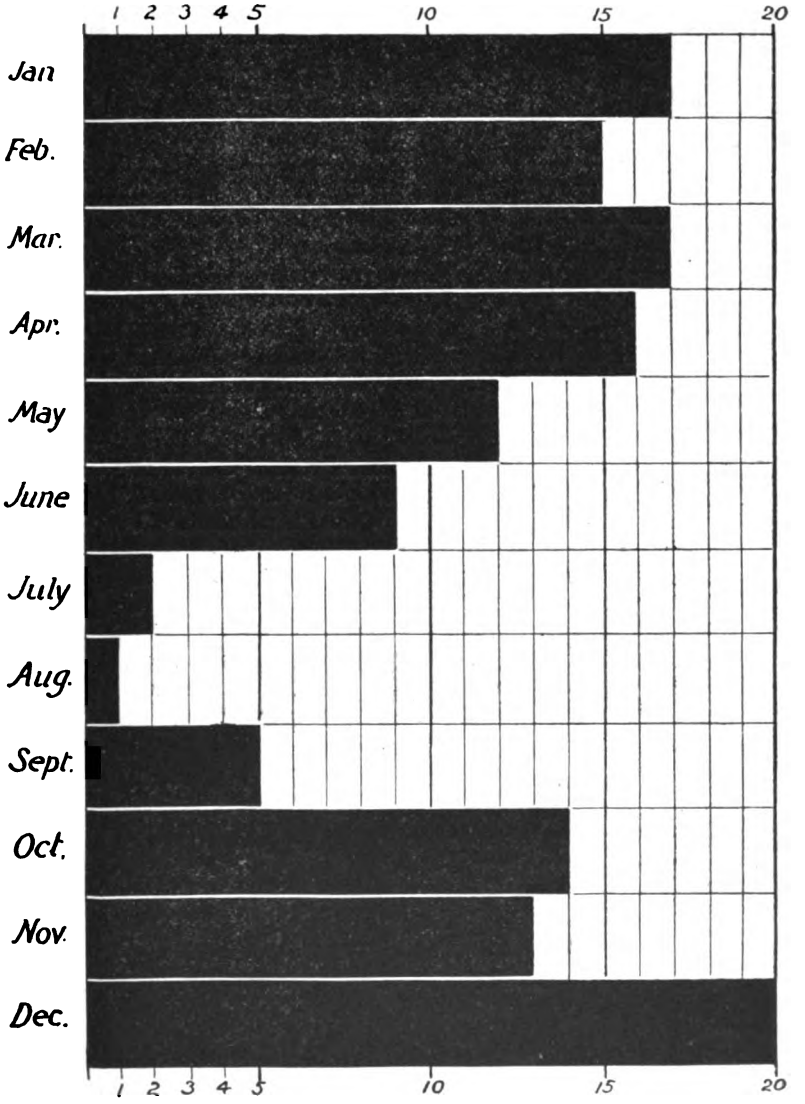
SCARLET FEVER.

The reported number of deaths from this cause was 131. December shows the most deaths—twenty—from this cause. The lowest mortality—one—was in August. The diagram shows the first five and the last three months of the year as probably most favorable for this disease.

DIAGRAM SHOWING DEATHS FROM SCARLET FEVER BY MONTHS, FOR YEAR ENDING SEPTEMBER 30, 1900.



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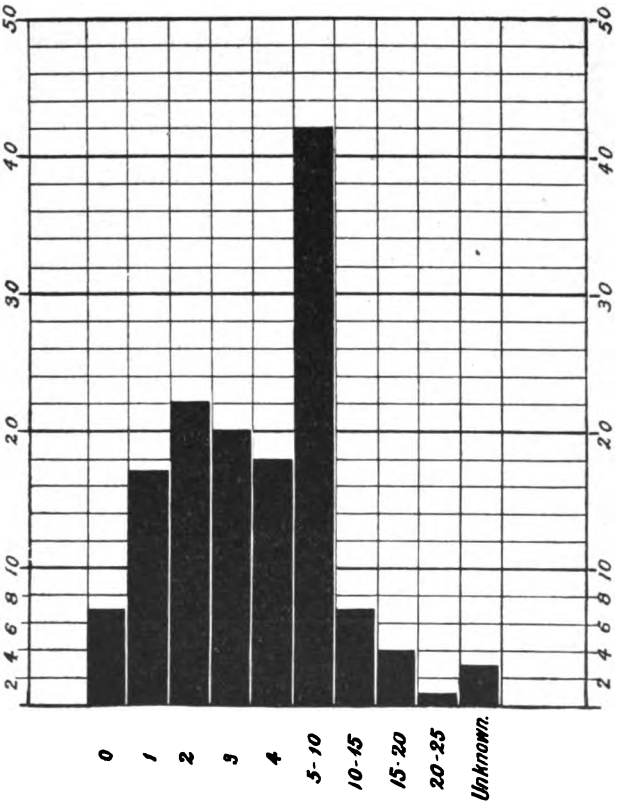
SCARLET FEVER DEATHS BY AGES.

Of the total number of scarlet fever deaths—forty-two, or 32 per cent., occurred between the ages of five to ten. In the first year of life the chances to escape this disease are as good as from ten to fifteen. The highest rates are from one to ten years.

Diagram Showing Deaths From Scarlet Fever by Ages, for Year Ending September 30, 1900.



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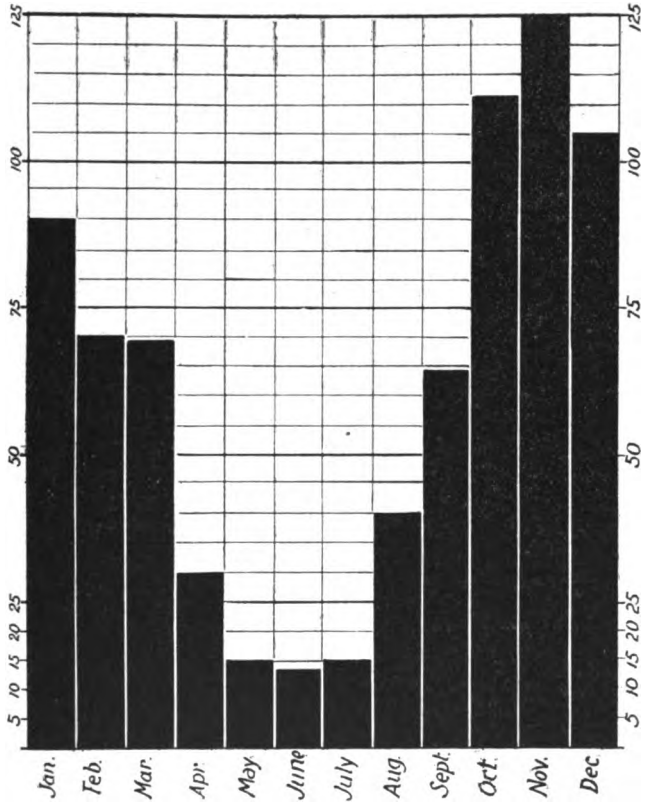
DIPHTHERIA AND CROUP.

The total reported number of deaths from these causes was 843. April, May, June and July show slight mortality. It is the school months in which this disease flourishes. It always begins in August and increases rapidly until December, when it commences to decrease. October and November are the highest months in mortality for diphtheria and croup.

Diagram Showing Deaths From Diphtheria and Croup by Months, Year Ending September 30, 1900.



DIPHTHERIA AND CROUP DEATHS BY AGES.

Of the total number of deaths—230, or 27 per cent., occurred between the ages of five and ten. After ten the drop is pro-

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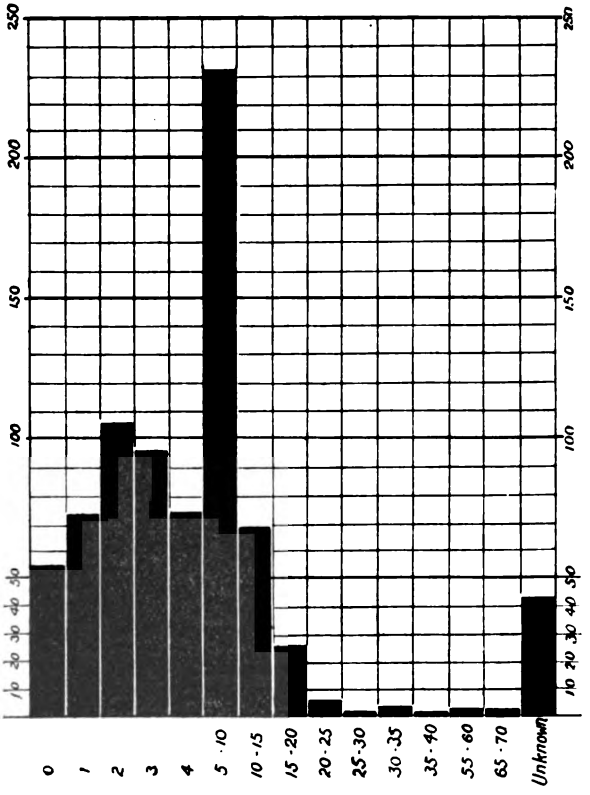
nounced, and after twenty it practically ceases to be fatal. From birth until five years of age occur 48 per cent. of all deaths from these causes.

DIAGRAM OF DEATHS FROM DIPHTHERIA AND CROUP BY AGES, YEAR ENDING SEPTEMBER 30, 1900.



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APPENDIX.

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TENTH ANNUAL CONFERENCE OF INDIANA HEALTH OFFICERS.

INDIANAPOLIS, MAY 8-9, 1900.

The meetings will be held in Room 12, State House, Indianapolis. First session 10 a. m., Tuesday, May 8.

An interesting and profitable program is prepared. There will be a Symposium on School Hygiene. This will be opened by a paper on "The Schoolhouse," by Mr. Louis Gibson, well known as an architect and writer on architecture. Mr. Gibson's paper will be illustrated by drawings. Following this will be a consideration of the various phases of school hygiene and papers upon various sanitary subjects.

All county, city and town Health Officers are urged to attend, and the public is invited. It is lawful and customary for Health Boards to pay the expenses of Health Officers to this official meeting, as the same is purely in the interest of the people.

For further information address the Secretary State Board of Health, Indianapolis, Ind.

PROGRAM.

First Session—Tuesday, May 8, 10:00 a. m.

Second Session—Tuesday, May 8, 2:00 p. m.

Third Session—Tuesday, May 8, 8:00 p. m.

Fourth Session—Wednesday, May 9, 10:00 a. m.

Fifth Session—Wednesday, May 9, 2:00 p. m.

Welcome—W. V. Morgan, M. D., President Marion County Medical Society.

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Address—"The Physician and the Health Officer," A. W. Brayton, M. D., Editor Indiana Medical Journal.

Paper—"The Schoolhouse," Mr. Louis H. Gibson, Architect.

Discussion.

Paper—"Age at Which Children Should be Set to Work in School, Character of Work, Hours of School Attendance Consecutively per Diem."

Discussion.

Paper—"The Use of Types, Prints, Blackboards; Proper Seating Distance from Blackboards; Necessity for Examining Eyes of School Children," Dr. G. W. Bence, Health Officer Putnam County.

Discussion.

Paper—"Contagious Disease Outbreaks Among School Children, How Best Dealt With; Closing of Schools During Epidemics; Prophylactic Use of Antitoxin; Vaccination," Dr. N. D. Cox, Health Officer Owen County.

Discussion.

Paper—"Inspection of School Children," Prof. Severance Burrage, Professor Hygiene Purdue University.

Discussion.

Paper—"Smallpox," Dr. Carl Proegler, Health Officer Allen County.

Discussion.

Paper—"Dairies—City and Town Milk Supply," Dr. E. D. Clark.

Paper—"Toxins and Antitoxins," Dr. Wm. Dodds, Indianapolis.

Paper—"Hygiene of the Child-Bed," Dr. O. S. Runnels.

Discussion.

FOR GENERAL DISCUSSION.

What are the most practical and successful ways of educating the public in the principles and practice of sanitary science?

What practical steps can be taken to secure general vaccination?

The placarding of houses for contagious diseases.

Public health and patent medicines.

Quarantine and disinfection.

Queries and experiences.

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MINUTES OF TENTH ANNUAL CONFERENCE OF INDIANA HEALTH OFFICERS.

FIRST SESSION.

The first session of the Conference was called to order at 10 o'clock a. m., May 8, 1900.

Dr. Davis, of Richmond, President of the State Board of Health, in the Chair.

The first on the program was—

THE WELCOME ADDRESS.

W. V. MORGAN, M. D., PRESIDENT MARION COUNTY MEDICAL SOCIETY.

As an individual, as a citizen, as a physician, and as the official exponent of scientific medicine in Marion County, I am glad, yea, I am proud to welcome you.

It is a long time since Hiawatha said to Pearl Feather, the Old Man of the Marshes:

> "Big words do not smite like war-clubs,
> Boastul breath is not a bow string.
> Taunts are not so sharp as arrows.
> Deeds are better things than words are,
> Actions mightier than boastings."

And so saying, proceeded to devitalize the old gentleman.

It is within the memory of many, how our fathers tried to act the part of Hiawatha by using charms, incantations, and various futile devices to destroy the arch enemy of our early settlers.

> "But the shafts of Hiawatha
> With his mittens Minjekawan.
> Harmless fell the blows he dealt it
> With his mittens Minjekawan,
> Harmless fell the heavy war club;
> It could dash the rocks asunder,
> But it could not break the meshes
> Of that magic shirt of Wampum."

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But—

> "Suddenly from the boughs above him
> Sang the Mama, the Woodpecker;
> Aim your arrows, Hiawatha,
> At the head of Megissogwon,
> Strike the tufts of hair upon it.
> At their roots the long black tresses;
> There alone can he be wounded."

All of which means that the Sanitarian came along and said to the farmer, "If you want to kill old Malaria, shoot him with a ditch," and the farmer proceeded to shoot.

Now, if for scientific purposes we desire to study the plasmodium malariae, we must seek it, instead of it seeking us. Let us hope that to perpetuate the memory of the Old Man of the Marshes it will soon be necessary to dig a ditch to represent his tomb and place upon it as a fitting monument, a large bottle of quinine.

The great Whittaker defined "Immunity" as a "getting used to it;" but sanitation is better than immunity, for sanitation means "getting rid of it."

Preventive medicine has passed the point when even the common diseases of childhood are considered inevitable.

We know that the prevention of whooping-cough, measles and scarlatina has resolved itself into the simple question of segregation, and that continued successful acts of segregation means the extermination of these diseases.

Recent experience has clearly shown that the width of a hospital hall is effectual in preventing the spread of whooping-cough, provided that communication between infected and non-infected is strictly prohibited.

Against the eminent contagiousness of measles, may now be placed the pleasing fact that Koplik's spots afford not only justification, but also demand, for immediate isolation of the patient.

That this disease receives much of its gravity from the fact that it often prepares the systemic soil for the reception of the germs of other diseases, is not a question of theory, but a matter of definite clinical history.

Added to the primary fatality of scarlatina are the terrors of chronic meningeal irritation, impairment or destruction of hearing, the renal lesions, and other sequellae, which as yet are unsolved problems.

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It is probable that these diseases destroy some principle in the blood which is needed for the physical well-being of the child, and that nature's inability to re-elaborate this principle accounts for many of the weaklings who come to untimely graves.

Showing the trend and enthusiasm of sanitation may be mentioned the fact that Galcher has recently urged upon the French Academy of Medicine the placing of pneumonia and broncho-pneumonia upon the compulsory notification list.

One by one the sanitarian is identifying the various riotous microbes, giving them a fair trial and sentencing them to be executed according to their various imprecations.

Science is the embodiment of unselfishness. It sees truth and says so; it identifies error and condemns it. It broadens no phylacteries; it contracts no virtues.

For me to enter into a discussion of the questions involved in tuberculosis, typhoid, smallpox, diphtheria and the numerous other preventable diseases would be to insult your intelligences and to appoint you as a commission upon my lunacy.

But if the Health Officer compels my admiration, he also excites my sympathy; for have we not in our midst the mealy-mouthed and pudding-brained biped who claims that every sanitary law is a usurpation of individual liberty, a robbery of private rights?

The most of us would be willing to restore his sweet freedom, if he would segregate his numerous self and wage his unequal microbic battle in solitary babbling bliss.

But he is rabid and ranting, infected with the bacterium "swell headi," and delights to toot his imaginary cyclopedic woes through the columns of the daily papers. He finds refuge beneath every banner upon which "Anti" is inscribed. He is anti-vivisection, anti-serum therapy, anti-vaccination, and is even anti when his aggressive creditors request him to ante up.

With the man who is a traitor to his country we deal most rigorously, but with the man who is a traitor to his race we are most lenient, trusting perhaps that he will die in the ptomaines of his own words, or be sterilized by the heat of public opinion.

Then there arise the short-haired women and the long-haired men who effusively protest that sanitation is science, and that science is not sentimental. Knowing that the logic of words would

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find no lodgment in their resonant crania, we send them for answer to the mother whose precious babe has been rescued from the shadows of the tomb by diphtheria antitoxin, and whose heart is full of poesy and songs and beams from the Eternal Light. "One touch of serum makes the whole world kin."

In the School of Progress Indiana always answers "Present." Whether in matters of prison reform, in crushing rebellion, subduing a foreign foe, or in managing an epidemic of smallpox, she knows no fear and courts no favor. She uses opposition as a kind of fuel to keep her enthusiasm up to the proper temperature.

And now to the Indiana Health Officers, who have passed from good to better, and from better to best, welcome, and thrice welcome, knowing that you will speed the day when all humanity shall bow at the shrine where true Science worships.

THE PHYSICIAN AND THE HEALTH OFFICER.

A. W. BRAYTON, M. D., EDITOR INDIANA MEDICAL JOURNAL.

It gave me pleasure to be invited by the Secretary of the State Board of Health to appear before you at a meeting which marks a decade of years. This is a time when Health Boards are achieving a greater good than ever before in the history of sanitation. Dr. Schrader, of New York, defines health boards as benignant autocracies. Let them be always benignant; let them never forget their autocratic power. That means courage mixed with kindness and good intent. The relations between the Health Officers and other physicians should be those of kindness, friendliness, and good will; there should never be a feeling of enmity between them. We can make very little use of and get very little help from enemies. We know how true this is in social life and in political life; mankind is a social creature, and kindness should be the dominant principle that exists between the Health Officer and the physician. This is sometimes pretty hard to maintain and secure and carry out in practice, because emergencies arise when the Health Officer has to assert himself.

Take, for instance, the mild epidemic of variola which has swept this country, due probably to the wide dissemination of that disease by the soldiers returning from the Spanish War. It is a very mild

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disease, happily, not so dangerous as measles, modified possibly by its introduction through a line of vaccinated soldiers. But we have it, and we have to treat it as though it might under varying conditions become a dangerous disease. So you will have to look at the disease that is prevalent in the light of its worst side. While the public at large and the family physicians are inclined to look at it from the light and easy and more hopeful side, they do not see the darkness that might lie beyond. So the Health Board Officer has to assert himself.

Take, for example, the position of our State Secretary, going to every part of the State and finding smallpox diagnosed as chicken-pox. He has to assert himself with a great deal of positiveness. He may even have to say to the physicians that they are bull-headed and ignorant. David said, "All men are liars." I presume he repented of it as he did of many other things when he had time to consider it more carefully. Of course we look to the highest officer as to the best exemplification of the relations that should exist between the Health Officers and the physicians at large, because he meets both parties. The State of Indiana may consider itself very happy in having as the Secretary of its Board of Health a man in whom we have the utmost confidence, a man of great natural vigor and force and natural friendliness—which may at times be disguised by the urgency of the case, but it is there, nevertheless. This is a matter of great pride with us; we have a man of courage and of scientific knowledge, and an enthusiasm that some have thought has almost bordered on fanaticism, in his earnestness to reach out and protect the lives and health of the people of this great commonwealth. It is a delicate position to be in, and I believe from what I have read and heard and observed that he is commanding the confidence of the people of the State of Indiana to an extent that none of us ever thought possible by the State Board of Health. The State Board of Health is made up of physicians of different schools—a thing which a man of common sense don't care anything about—a Board of Registration made up largely in the same way—and he has the cordial co-operation of them all; he has brought to his side the aid and sympathy of the Homeopathic Governor, and has had the influence and strong support of the Attorney-General's office. And here I may say that with your aid, though sometimes he has worked almost single-handed, he has se-

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cured for us a thing that Legislators and men high in their judgment of what Legislators could accomplish believed was not possible, the establishment for the State of Indiana of a health law that is not surpassed by that of any other State in the Union. We ought to be proud, everyone of us, that this health law has been supported by recent decisions of the Supreme Court of Indiana, which, while applied to a specific case, the case that came up from Terre Haute, has emphasized forever the power of the State Board and the County Boards to use the whole police power of the State, if necessary, to carry out the laws and provisions of the State Board of Health and the County Boards of Health throughout the State.

I think we may congratulate ourselves on the influence of the State Board and the Health Officers scattered through the State upon the Legislators and the governmental department which we have carried with us in the establishment and presentation before the people of the functions and the duties of the Boards of Health. So I say that this meeting, it seems to me, does mark, at the end of this decade of years, a very great advance. We have got something we can point to; we can approach the people with some sense of power and compulsion; not knowing simply that we are right, but that we are in a position to make them see that we are right.

I need not go on, gentlemen. You know me, you have heard my expressions, and those of you who have seen the Indiana Medical Journals have seen them month after month. I am, and will be, so long as I am editor of the Indiana Medical Journal, a warm upholder of the State and of the County Health Boards, and we will uphold the officers, and as rapidly as we can we will get better men into them. A few days ago my ward committeeman asked me if I was going to support him and the slate he was going to make up for the late convention. I told him of course I would support him. I told him we put him in there to support him, and if he did not do what was right this time we would fire him out next time and put a better man in his place. That is the position we should take toward the Health Officers—support the office and try to get the man to do his whole duty; then if he fails, at the next election get a better man. We don't take it for granted that you are all as capable and as good men as possible that might be elected in the community for that purpose. Some of you are men upon whom the office has been thrust.

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I will again urge, as a final word, the necessity of kind professional relations between the Health Officers and the other physicians with whom they have to meet. You have no right to think of a physician as a Homeopath, an Eclectic or a Physio-Med, but only as a physician who has established his position in the community, and whom certain people have chosen for their doctor. It is no time, when a man is the holder of authority, to seek revenge or to seek to push the tenets or theories of any school of medicine. If people will not use antitoxin you can not compel them to use it. You can advise them to use it, and even urge them to use it, and can send them the literature which is at your command; but you can not force them to use antitoxin. You can do a great deal of good through the literature that comes to your hands; you can educate the people in this way. Many a man has taken a speech or an article home and read it in the quietness of his own study, and has been convinced by it, where you never could have captured him if you had argued with him. In arguing we get so insistent upon our own point that we forget the real function of argument. We see these things all the time; it has occurred in my practice, and I suppose in the practice of each of you.

The State Board of Health had confidence enough in me to send me to diagnose cases of smallpox, and I do not think I have left any of the towns I visited without having benefited our cause by visiting the people and giving them literature. At Peru one or two physicians asked me what I was going to do if I could not tell whether certain cases were smallpox or not. I said, "I am going to stay here. There is no place for me in Indianapolis if I can not decide which it is." They said: "We have unloaded upon the State Health Board. We may be called bull-headed and ignorant, and we have unloaded the whole question upon the State Health Board." I said: "I will stay, and if I am not sufficient in my own knowledge to determine it I will send for Dr. Spaulding, or some one from Chicago, but I will stay until it is determined." That kind of thing will win every time. Let me urge this upon you. Keep in the utmost kindness and friendliness toward those with whom you come in contact; support the State Board of Health and read carefully the literature it sends out; read the Indiana Medical Journal; there is no better journal in the State for the enforcing and the upbuilding of this cause. It tries to keep in touch with

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medical progress. I don't say subscribe for it unless you wish; borrow it if you wish, but read it. I do not say this because I am the editor, for I would be glad to be rid of that burden. If I spent the time I spend on that journal in attending to my own practice and collecting my own bills, I could make a great deal more than the $600 a year I get from it. I speak of this journal simply as I would of any good medical journal; it does not need advertising.

I thank you for the kind attention you have given me, and for the pleasant countenances you have turned upon me.

DISCUSSION.

Dr. Hurty: I have been asked a good many questions, and I know that nearly every officer here has something upon his mind that he wants cleared up in regard to the enforcement of rules and in regard to his duties. Some one asked me a moment ago in regard to measles and typhoid fever.

In the last rules sent out by the State Board the first one sets forth what diseases shall be reported and quarantined. Typhoid fever was added to the list to be reported, but not quarantined. It never has been reported before. Of all diseases typhoid fever should be reported. But there is a special exemption in the rule which says it is not to be quarantined. It is extremely necessary in the vital statistics of the State, and in the perfect study of the matter, that we should know how many cases of typhoid fever we have, as well as how many deaths. Under the present system we secure the number of deaths with very great accuracy, as you know. Now we must, if this work is going to be done well, secure as accurately as we possibly can the number of cases. The intention of the Board is, as soon as a case is reported, to have the Health Officer supplied with circulars upon the subject of typhoid fever, and then he in turn will send these circulars to the afflicted house. Not only that, but where deaths have occurred do it again. This work in Michigan has given splendid results. If we look upon the records of the Michigan Board we find that they have something like 20 per cent. fewer deaths from typhoid than Indiana. Michigan is not yet getting a perfect record of the cases, although she is leading in most of this work. As soon as they hear of a case of typhoid fever the house is "circularized," as they call it there.

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They try to teach the family that typhoid fever is a filth disease, and that there is no need of it. If a family has a death its members are in a receptive mood, and they are less likely to call those cranks who would help them. We want to get typhoid preventive information into every household that is afflicted. A few years of education of this sort will very perceptibly lessen the number of cases we have. Of that there can be no question. It has been successful in Michigan and in Massachusetts, in Rhode Island, Maryland and some of the other States, and Indiana wants to be in the very lead, so far as it can be, in this work.

Then it is gradually dawning upon the people that measles must be controlled. The old idea that mothers should expose their children to measles and let them take the disease, is, I believe, about exploded. Of course there are many who yet contend that that is the proper course. I do not think the time is ripe for quarantining measles as absolutely as we do diphtheria and scarlet fever. In this city every house is carded, but the measles quarantine is not maintained like diphtheria quarantine, but it is the initiatory step to card the house. Every County Health Officer should provide himself with a number of measles cards and distribute them to the Township Officers and instruct them to use them. You know we have more deaths from measles than we have from scarlet fever, though, of course, we have more cases of measles. We have also more deaf, blind and injured children from measles than we have from scarlet fever. It causes us to lose more money and more happiness than does scarlet fever, and yet we do not stand in awe of it as we should. In a few years I predict it will be handled as rigidly as we now aim to handle scarlet fever.

Dr. Powell, Marion: In connection with this matter I would like to ask a question. It frequently happens that there are cases which are to all intents and purposes in the city, and hence the question—Shall the City Health Officer be confined strictly by the corporation limits, or shall he go outside in that part of the suburbs which are not really in the limits, but are virtually a part of the city?

Dr. Ridpath, Indianapolis: In this county the corporation limits would be the dividing line. I do not know how it would be in other places. Dr. Clark, the City Health Officer, is limited by the city

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limits. Any case occurring outside the limits is reported to me as County Health Officer, unless it is in an incorporated town. It seems to me it would be better to hold strictly to your line. If the City Health Officers made a practice of going outside the limits, in some cases where they did not go, the County Health Officer might think they had attended to them, and confusion would result and some cases would not be attended to at all.

Dr. Smith, Howard County: In Kokomo we have an ordinance giving the City Health Officer power to go two miles outside the limits. That, of course, takes in all of our own town. I do not think any of the stray new additions run out more than that distance.

Dr. Proegler, Fort Wayne: There is no such thing as a two-mile limit for the City Health Officer. The cities are given police powers only for the two-mile limit. We are carding everything outside of the cities, and compelling the city officers to have their houses carded where there is disease. I do not believe in that two-mile limit. Where the city limit ends, my duties begin.

Dr. Anderson, Grant County: I was asked recently to go to a little town called Simms, about two miles from our town, to see about the sanitary condition of the place. Have I power to do that? I am the Health Officer of the town of Swayzee.

Dr. Hurty: That is the duty of the County Health Officer. He has jurisdiction; you have no power there at all.

Dr. Arwine: The whole western portion of Bartholomew County is destitute of Health Officers. The County Officers would have to make trips of fifteen or sixteen miles, sometimes on horseback, to look after that part of the county. The people there do not believe that measles are dangerous, and we do not usually know about cases until they are all over. I try to have all contagious diseases reported and quarantined as closely as possible.

Dr. Hurty: Smallpox cases have escaped us in that very way. Of course we can not do anything if we have no knowledge of the cases. We can only keep trying, and doing the best we can.

Dr. Bosworth: When I took the office three years ago I adopted the plan of having all the Health Officers in the county make re-

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ports of all disease within reach, as well as the births, deaths and marriages, and I find that it works very nicely. We are working harmoniously, and I believe getting nearly everything reported.

Dr. Wright, Warrick County: In our county an individual had a lot that the corporation limit of the town of Boonville ran through, and on that lot he had a lot of hogs and fed dead cattle to them. We brought suit against him and he was fined. In my town we have about thirty cases of measles. It has been epidemic since March, and we have not had a death. I have been asked why the cases were not quarantined, and I say there is no necessity for it; I think everyone must have the measles.

Dr. Griffiths: I think I will get reports of all the cases of measles in my town. Some of the physicians are a little dilatory in reporting births. I always hesitate a little about enforcing laws, yet I now feel that one or two of the physicians should be admonished in that way. A few years ago I gave voice here against quarantining against measles. I am now in favor of quarantining that disease. I now have cards put on every house where I know there is a case of this disease, and those who do not want to go into danger can stay away.

Dr. Proegler, Fort Wayne: As far as reporting births is concerned, I think we can get full reports. During the past six months I have brought suit against six midwives and have convicted four. I have given notice to all the physicians in the City of Fort Wayne that they must report all births, and have had to notify two of them that if they did not notify me of births they would be prosecuted. They are all friends of mine, but the reports must be sent in.

Dr. Hunter, Lawrence County: Speaking of midwives, I will state the trouble we are having. On investigation I found that midwives were acting as nurses. They would go a week or two before the expected time, and would happen to be there at the time of the birth, and the physician was knocked out of a fee. They claim that they are only acting as nurses. They claimed that they made no charges, but the head of the house usually make them a present of money in such sum as they deem right. Under the circumstances I thought from the way they had planned to get the cases there was no chance to get their names before the grand jury.

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Dr. Powell, Marion: I have found that clergymen and justices of the peace are very dilatory in reporting marriages. When they do send in the reports they are sometimes the most horrible specimens of chirography imaginable. In order to secure better reports from these people I took the form of the report and had it copied on a larger sheet for them to write their report on, and added to it a page, and stated explicitly how to fill it out, then had the margin between the two sheets perforated so that they can tear off the report and send it in. Since that was done I have secured reports of all the marriages, I think, and they have been reported within the legal time. I shall be glad to furnish to any Health Officer a copy of the form of report we are using. I put them in the hands of the County Clerk and he hands them out with the marriage license. They have a number on them, and this number corresponds with the number of the marriage license.

Dr. Owen, Muncie: I think the present blank for reporting births is hardly large enough. I think we have all had trouble with this. There is too little space for filling in the mother's maiden name, and too much space is allowed for filling in the age. I turned the matter of trouble with midwives over to the State Board of Registration. I think that is under their jurisdiction. For many years we have been quarantining against measles in our county, and have had the flags put up at the houses all through the county. It has a good salutary effect upon the people. If we are lax about measles we are apt to be lax about other things.

We have a great deal of trouble in securing birth reports in time for the quarterly report. It seems to me the time for sending in birth reports is a little short. In the city of Muncie the report has to pass through the City Health Officer's hands, and it is about due when it gets into my hands.

Dr. Bence, Putnam County: I want to know how the Health Officers like the system of the collection of death statistics. I myself like it very well. As far as keeping in touch with the death record of the county, and seeing that the law is complied with in-regard to filling out the certificates, I don't like it, because we don't know anything about what is going on outside of our immediate vicinity. Sometimes it is three months before we know about the deaths that have occurred in the county. At first they started in to

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issue the bulletins monthly; but I suppose the postage bill got too large, and now it is delayed to three months. I think there should be some modification. Not in the manner of making out the certificate; I do not think that can be improved upon; but it ought to come direct to the County Secretary's hands in order that he may know what is going on in that community. We have all kinds of people in the State of Indiana, and doctors are only people. Doctors will sometimes help to conceal epidemics—at least the people who do this are called doctors—and we may have the deaths reported as being caused by something else than the true reason. If the County Secretary is to have control of the health affairs of the county he ought to know what is going on in the county before three months have passed.

We have not been doing much about quarantining against measles. Dr. Hurty spoke about having the County Secretary furnish these flags. The County Secretary is only bound to furnish flags within his jurisdiction. It is the duty of the Town Health Officers to furnish them within the limits of the towns. The County Health Officer has jurisdiction outside of the corporate limits of a town. The two-mile limit applies only to police powers.

Dr. Loomis: I think that the present system could not be improved upon very much. As soon as you undertake to have the Town Health Officer report them to the County Health Officer you will get into a jumble. The different Health Officers in the county report direct to the State Board of Health, and if they are not prompt in reporting the Health Department here looks after them, and they are much more apt to obey an order from the State Board of Health than from the County Board of Health. I keep track of the deaths pretty well by taking the county papers. Our county, as you know, is very small, and I am able to learn of nearly all the deaths which occur in the county in this manner. I am positive that no burial in my county has taken place contrary to the law. The undertakers are liable to a heavy penalty if they bury any one without a permit.

In Newport, the county seat, they had about fifty cases of measles during the month of March. They are still epidemic. I sent a lot of reporting blanks to the Health Officer there, and he filled some of them out and sent them back. He said a great many of the cases were so mild that the families did not call in a physi-

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cian. I have seen it stated that the number of deaths from measles was greater than the number of deaths from scarlet fever. That being the case I do not see why we do not quarantine against it as rigidly as we do against scarlet fever.

Dr. Hurty: Dr. Bence has brought before us an important matter. This system of collecting mortality statistics is not perfect, but I am pretty certain it is the best we can do at the present time. We will do better in another year. The question arises, how will the mortality statistics be collected? Michigan has had an experience, and so has Massachusetts, New York and other States. We communicated with those States, and they unanimously recommended that the reports be made directly from every reporting station to the central authority. It has its disadvantages, but the advantages greatly outweigh the disadvantages. Unless it is done in this way we will find there will be delays, and instead of having the report finished by the fifteenth of each month for the preceding month, it could not be finished before forty or fifty days. The local County Officer, who is, of course, superior in his county, does not have his finger upon the pulse of this matter to the degree that he should have in order to command perfectly; but if that is given to him, then this other point of time is lost. Then again, not only is the time of publication lost, but the time of classification in the State Board's reports. Now the final report has to come out of the State Board, and this classification is a prodigious job. We must get at the work quickly, and every day that is lost puts the report back. I think you will appreciate the necessity of our getting the reports direct. We intended at the very beginning to send the transcript of the death report immediately after they were made out to the County Officers. We did that the first month, and then found out that with our present office force and the present amount of money we had to work with we could not do it. For this reason we had to postpone sending them out every quarter. We can not help this now, but I think the difficulty will be removed in another year, for the people and the Legislature are being so well educated in this matter that they will give us money enough to do the work properly.

Dr. Bence, Putnam County: Why would it not be a good plan to have the undertaker see that this permit shall be forwarded to

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the county officers. I have no objection to the present system, but I do want to have the information about those deaths, and to know just what each one died of. When we get the undertaker's slip we know all about it.

Dr. Hurty: I think that is a good idea. I had not thought about it before, and perhaps it might be done.

Dr. Taylor, Crawfordsville: There is an objection to that. The undertakers in our city have been instructed that these reports are proof that they had a legal permit to bury the body. If I were an undertaker I would not give up these slips. At our conference last year a suggestion was made that a duplicate certificate of death be issued and sent to the County Health Officer. I do not know of a County Board of Commissioners that would not allow for the postage for this if a proper representation was made to them.

It appears from the remarks made here this morning that we have no uniform system of dealing with measles. Two Health Officers have said that they put out cards and leave the public the choice to go in or to stay away. Even the Secretary of the State Board of Health has indicated that he does not believe the quarantine should be so rigid as in the case of scarlet fever. Our practice is to put it under as strict quarantine as we do scarlet fever. We first isolate the case and then establish a quarantine, and when the case has convalesced and the danger is past we disinfect the house just the same as in the case of scarlet fever and diphtheria.

Dr. Bence: To get at the matter of getting the death records, why not make the burial permit in duplicate; one to be retained by the undertaker and the other to be forwarded to the County Health Officer? Then let the certificate and record come on as now to the State Board of Health. Don't put any more on the doctors, put it on the undertaker; he can afford it, but the doctor can not. The doctors are doing half the charity work of the counties now.

Dr. Griffiths: I do not know that it is very material that the County Health Officer shall have the information if the State Board of Health gets the statistics all right. I think the new law is very nearly perfect as it is.

On motion the Conference adjourned to meet at 2 o'clock p. m.

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SECOND SESSION.

Tuesday, May 8, 2 p. m.

THE SCHOOLHOUSE.

LOUIS H. GIBSON, ARCHITECT, INDIANAPOLIS.

Nothing that I have to say is new. Certainly none of the ideas are experimental. We do not have to invent new ideas in school buildings. Those who build schoolhouses should be directed by established knowledge and the strong arm of the law. They should be required to furnish pure air, good light and clean surroundings. Children are in school at a time in their lives when pure air, clean surroundings, good light and general comfort count for the most. Adults in offices, factories and general laborers suffer less restraint, have more freedom of movement and attitude, average better light and purer air than children in school. At this time we have a number of well-built schoolhouses in the State. The number is relatively so small, however, that they only serve as illustrations.

I here undertake a journey through a schoolhouse—one ideal, but not built. It is an eight-room brick building. The lot is on a corner. The frontage is 135 feet and the depth 195 feet. There are no tawdry, meaningless towers, no dormers or gables which have no use, no wood or galvanized iron cornices, nothing that is shabby or of a decaying quality. It is a beautiful building, built like every other beautiful structure which has found place in the world's architecture. First of all, it is suited to the purpose to which it is intended. It expresses its purpose. The decoration is applied where decoration may become a part of the structure.

No decoration is applied merely for its own sake. The grade line at the building is 18 inches above the sidewalk. The entrance to the building is 6 inches above the established grade. From an inclosed vestibule one goes 4½ feet upward to the main floor. This upward stairway is 11 feet wide, and there are others on each side going downward to the basement. The basement is divided through the center—one side for boys, the other for girls. It contains waterclosets, urinals, washstands, racks for wheels, space for heating apparatus, storage of fuel and limited play space. The

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floor throughout is of cement, the ceiling is plastered and the brick walls tinted.

The vestibule named contains two sets of storm doors. Similar entrances into vestibules are provided in rear. The first story is 13½ feet high. The main corridor is 24 feet wide. It provides a practical assembly hall for the second floor and abundant space for stairway, vestibule and teacher's room on the first story. In the rear of this corridor on the first story there is a broad stairway 11 feet in width going half way up to a landing, where it returns by two six-foot stairways next the walls on either side and goes from the landing to the second floor. The assembly hall on the second floor is 24x56 feet. There are four schoolrooms on each story.

All floors are edge-sawed yellow pine, narrow strips two inches in width. They are finished in wax. Yellow pine is practically nonabsorbent and absolutely so when it is waxed. Such a floor need never be scrubbed. It is sanitary and economical in every way.

The room is 26x30 feet. It is provided with the usual amount of blackboard surface, and all that is not practically in use is covered by stretching jute over it, and on this jute is pinned drawings of the pupils, prints of portraits and good pictures of current events, which are so common in these days of cheap printing. There are framed pictures on the walls and on the window ledges there are flowers. The wall surface is tinted or painted a light green, light terra cotta or a very light brown, for all that part of the room which comes below the top of the blackboard, which is also the line of the picture molding. Above this line the wall and ceiling are tinted a light yellow or light tan, which colors are adapted to receiving and distributing light.

The room is lighted from one side only—from the left side of the pupil. There has been a good deal of temporizing in the question of lighting from one side only. Every one, so far as I know, regards it as theoretically advisable, but not always practically possible to carry the light that distance into a room. The discovery of the light-carrying power of common factory-ribbed glass, costing about the same as double-strength glass, solves this problem. Ribbed glass does not bring any more light into a room than any other glass, but distributes it better and differently. The light is distributed at right angles to the sheet of glass across the room, and

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not to the floor as under ordinary circumstances with common glass. The corrugated glass diffuses the light and reduces the shadow. The lower part of the lower sash should be glazed so that the pupil can see out.

The shades should be attached to a movable fixture which will run up and down so that light can be taken in from the top as well as a view afforded from the bottom.

The windows which I mention are not mere slots or openings left in the wall, but a broad opening extending three-fourths the width of the room, and from the ceiling within three feet of the floor. The mullions are as narrow as possible. It is the idea of a great store window with all but the lower part glazed with the ribbed glass.

Now as to the air which enters our schoolroom.

What is pure air? A report of the chief of district police of the State of Massachusetts says: "Experiments and investigations have shown that pure air contains a certain proportion of carbonic acid gas, and the proportion does not vary greatly from four parts in ten thousand of air. It has been shown further that if the quantity of carbonic acid gas be increased to eight parts in ten thousand by respiration it is no longer fit to breathe, and if breathed continuously will produce disease. This relates to quality. A properly ventilated room is one from which the impure air is removed as it becomes unfit for healthy respiration and its place supplied with pure, fresh air."

How much air is needed? Here again the chief of district police speaks: "Thirty cubic feet of air per minute or eighteen hundred cubic feet per hour for each person."

Generally speaking, ventilation may be classed under three heads—forced ventilation, by which is usually meant fan ventilation, and is the most positive and satisfactory; ventilation by aspiration, which means by heated chimneys or shafts for the removal of air from occupied rooms. Where skillfully put in, fair results may be expected. The ventilation by natural means, which merely provides flues through which air may go out and with no means of forcing it or drawing it out excepting variations of temperature between the inside and outside, is practically worthless.

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The watercloset system of disposing of human offal is unquestionably the best, and in the long run the cheapest. It should be put in under proper sanitary regulations.

The question of humidity of the air in schoolrooms is entirely neglected so far as I know. Pure, cold winter air warmed to a summer temperature and conducted to a room is not summer air. It is thirsty, warm, winter air. It is dry, warm, winter air. The proportion of moisture is less in winter air than at a summer temperature. The winter air being warmed to a summer temperature seeks its equivalent of moisture at the higher temperature from individuals, and everything in the room, everything with which it comes in contact. A water pan on the outside of a furnace does not add moisture to the air of the room. The water is at the wrong end of the furnace. The moisture should be added after the air has been warmed, and not before. This is true of any heating apparatus.

Cloakrooms should be properly warmed and especially well ventilated. It has been suggested that each pupil should have an independent apartment to provide a separation of clothing. Cabinets for cloaks and wraps provided with roll tops, with means of drying and ventilating, are now on the market. They are usually placed along cloakroom or corridor walls. In some instances the cloakroom is eliminated altogether, and the expense thereof reduced by this means.

The small schoolhouse will suffer when compared with the larger house in ventilation and watercloset arrangements. Manifestly fan ventilation and waterclosets of the highest type with water supply are hardly to be thought of in small, isolated structures. I have in mind a one-room school building with a vestibule on each side of an entrance, and two closet rooms from each vestibule. It is the intent of this plan that these closets should be well ventilated by natural means and the offal received in boxes and taken away every day through an opening in the outside of the building. The efficiency of such a building is dependent upon the care it receives.

A furnace can be placed in a vestibule in a compartment to itself and thus do away with the expense of a cellar. It can furnish fresh air to the room properly warmed, and the smokestack of the furnace and other heat necessary can be used to accelerate the movement of the air in the vent stack. The plan which I have in mind has two cloakrooms connecting with the vestibule and schoolroom.

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I have written this paper for the sake of impressing this last paragraph. Detailed plans and specifications for every schoolhouse built in the State of Indiana should be submitted to a State Board or officer, who should criticise all and report on them on the basis of a fixed standard of excellence. In the State of Massachusetts this work is done under the regulations suggested by the State Board of Health and executed under the supervision of inspectors known as the State District Police. The erection of school buildings when dependent upon the intelligence or integrity of Boards or Trustees can not possibly be satisfactory. The educational means are inefficient; influences brought to bear which induce poor work are often unscrupulous, and then, as we know, no administrative body or individual is apt to criticise his own efforts, and hence the entire combination in all its details works for bad. The plan and construction of school buildings should be under the supervision of proper State officers.

THE USE OF TYPES, PRINTS, BLACKBOARDS; PROPER SEATING DISTANCE FROM BLACKBOARDS, AND NECESSITY FOR EXAMINING THE EYES OF SCHOOL CHILDREN.

DR. G. W. BENCE, HEALTH OFFICER PUTNAM COUNTY.

I shall simply advance a few ideas in regard to some things in the schoolroom, and then have the matter discussed. Our object is to better the condition of the pupil, to recognize the condition in which he goes into the schoolroom, and then better that condition if we can. I will take it up especially in the line of the vision of the children.

Too few people recognize that a great many children—in fact a large per cent. of them—have congenitally defective vision, and that they go into the schoolroom with defective eyes; that when they go there they are started in by the modern teacher on an equality with the other children and are supposed to maintain an equality with them throughout the course of study. The teacher as a rule knows nothing about the eyes of the children, and usually a child with bad vision or bad hearing is considered stupid. I will tell you about some of the things I have done during the past year, and the result.

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The first thing that should be done is to have an examination of the eyes of the children when they enter school. That is, as to their visual power. You can not have a complete scientific examination made of every child's eyes, but you can get his visual power. It can be done by the teacher with very little instruction. We have adopted a plan for this examination in our county which works very well. I started it last year. We take the regular set of test types used by all oculists the world over and give one to each schoolhouse. We have about one hundred and forty schools in the county. I bought one hundred and fifty of these charts, at a cost of six dollars a hundred. The instructions are given on the card for using it. The letters are numbered, and the number corresponds with the distance at which the normal eye can read the letters. Any great deviation from the normal in a good light should be attended to at once, and should be corrected by a proper adjustment of glasses, unless it is due to some disease of the structure of the eye, to some organic cause; but in the majority of cases it is due to some optical defect and can be corrected.

This year I am going to have cards printed to notify the parents that the child has bad vision—when such is the case—and we advise them to refer to some well-known optician.

Right here I want to criticise Mr. Gibson's remarks about the proper distance from the blackboard. If he took anything from the room he would make it narrower and longer, in order to get the children away from the blackboard. Anyone can readily see that if the pupil is in a room thirty feet away from the blackboard you will have to make the letters and figures on the blackboard very large or he can not see them. If you make them all large you will not have much room for writing on the board. You should have your pupils within easy reach of the teacher's eye. If you put a pupil, and especially one who is a little defective in hearing, thirty feet away from the teacher, he will not hear well enough.

The children with defective vision should be sent to a careful and conscientious physician, one who makes a specialty of examining eyes and who understands it. One unfortunate thing about a plan of this kind is that as soon as you start it in a county, and the parents are advised to send their children to some one to examine their eyes for glasses, the whole county is flooded with fulsome advertising by every jeweler in the county who has been able

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to go to Chicago for three or four weeks to learn about the business, and they get most of the cases.

The next thing is to have the seating properly adjusted. I will draw a picture of a desk here on the board. This is a model of a desk where each desk can be adjusted to the height of the child and the length of its limbs. The back should be curved slightly. The edge of the seat should come about four inches under the edge of the desk. Some people would have the seat far enough away from the edge of the desk so that the children can stand up in front of the desk when they are called on to rise; but it is better to have this kind of desk I have drawn here, and when they have to stand up they can just step into the aisle. I have gone before our county institute and explained this to the teachers, and in a great many cases the boards have been called in and changed the desks, and the teachers tell me they give much better satisfaction than the old style of desks. The desk I speak of is the Chandler school desk.

The constant use of the eyes at the near point which is required in so many schoolrooms, where the pupils are not allowed to look up to rest the eyes, and the constant use of a pencil and tablet all tend to bring about eye troubles. There should be a rotation of work. The eyes should only be used a limited time on the text, then they should go to the blackboard or to chart work or to oral instruction. And if they must do a great deal of their work by writing, banish the tablet and pencil and have them use ink and unglazed blue-white paper. In our town they adopted a dull, heavy, yellow paper and a pencil. I am a little contrary about some things, and when my two girls were given those tablets I had them bring them home and I furnished them with white tablets. The teacher tried to compel them to use the others, but I told them to tell the teacher that if they were compelled to use those tablets I would take them out of school and give them private instruction. The trouble is with the school boards. We will average one or two good township trustees in the county; the others were never intended for township trustees.

You will find a great many children with a vision that will not enable them to see these letters on the chart further than 20-70. What is that child going to do in a school along with one who has perfect normal vision? Are you going to make him take up the full school instruction? If you attempt it, in many cases you are

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going to drive him out on the streets; he will not go to school, but will play hookey. What should be done is to make a more elastic curriculum. If a child can do a certain amount of work, let him do that part well and advance him in that. He will in this way get enough education to make him a good and useful citizen, and that is what the schools are trying to do for the rising generation. But try to make them bring up everything in the course from A to Z and you will drive these children with defective vision and hearing out of the schools, and they will turn out to be wild boys or tardy, discouraged girls, and you will have a number of pupils there in the school who will never amount to anything as citizens in the future.

Another thing is, that this constant teaching of the text, and these term examinations that require a pupil to go and review everything they have gone over during the whole term is wrong. Term examinations ought to be abolished. A teacher who does not know, after months of instruction, how well qualified a child is ought to be turned out of the schools.

As to books, we have to take what they give us. Of course we can not correct that. But books should be printed on good paper, unglazed, with large type, well spaced, and, above all, double columns. We should watch those things as much as we can, though, of course, in the matter of books we must take what they give us.

I will relate you my experience in testing school children's eyes. We had the eyes of 748 children tested. Remember that this is not a scientific test, but a test made with these cards by the ordinary teacher. The ages of the children ran from six to twenty. Of those who could see the largest row of letters the total was 298 out of 748. Among this number there were 166 boys and 132 girls.

(Dr. Bence had a chart from which he read the figures. He did not give it to the stenographer.)

Now, Mr. Gibson has given you a good deal with regard to the construction of the schoolhouse, but he did not speak of the commonly accepted area of light per foot of space. Schoolhouses are built usually to have the light come from both sides. Whichever side you have it on, unless it is on the north, you are certain to have at some time during the day bright sunshine. The ribbed glass Mr. Gibson spoke of would modify that somewhat. We are using in our county a double shade. We put up an ordinary shade of

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dark color and with ordinary roller fixtures, but fastened at the bottom. We have an arrangement by which it can be fastened at any point as you pull it up. Then we have white holland hung on the top, to be pulled down with a string. When the sunlight comes in we pull this white holland down and regulate the light. It is surprising how this will regulate the light.

You will find that a majority of the desks in the schoolhouses of the county need adjusting. Every time a school makes a change of desks see that the adjustable desks are put in.

DISCUSSION.

Dr. Proegler, Fort Wayne: I move that the reading of papers be limited to twenty minutes, and that each speaker be limited to five minutes in discussing each subject. Motion seconded and carried.

Dr. Cox, Owen County: I want to publicly thank Mr. Gibson and Dr. Bence for their papers on this subject. It is a very deep and intricate problem; it is a problem that has to be met and is bound to be met. The ordinary country schoolhouse is a disgrace, and probably lays the foundation of more diseases in childhood than any one thing we have to contend with, and yet it is thought the least about.

Dr. Ridpath, Marion County: I am extremely pleased with the two papers we have just heard. In my annual report to the State Board of Health I recommended that some competent architect be asked to read a paper on this subject. I made a further recommendation, which I suppose could not be carried out, and that was that by co-operation of the Township Trustees, that in some way the information imparted by this gentleman should be gotten into the hands of the Township Trustees. If this could be gotten before them and impressed upon them, we might receive results. We have school buildings in this county that have actually been condemned. I have condemned one within the past six weeks myself. Politics becomes mixed up with the question and makes it more difficult to settle. Of necessity, however, there must be new school buildings at these places. In Wayne Township one of these buildings has been in use for over thirty years, and the other one for about forty

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years. Neither of them are fit for schoolhouses. The Township Trustee is engaged in a political campaign, and you can not get his attention on this question. The people want a good schoolhouse; but I want to impress upon him that we need a good schoolhouse put up in the best modern way. Unless that particular man acts soon his term of office will expire, and he will go out and act as County Commissioner. These are the men I want to get this information before. I am interested in Dr. Bence's work. I think he has done a great work in his county. I only hope we can get the information where it will do the most good.

Dr. Taylor: I suggest that the Doctor get some copies of the bulletins when these papers are published, and mark them and send them to the Trustees.

I think something should be said of the qualification of plumbers. A bill was before the last Legislature for the registration and certifying of plumbers. Not long ago I found a refrigerator in a house where the drainage pipe was connected directly with the soil pipe. I asked the plumber why this was done, and he said the people wanted it that way. I told him that as he was a plumber he knew it was not right. I am satisfied that Mr. Gibson was right when he said that about 95 per cent. of plumbing is of such a character as I have described, and it is time that something in that direction was done, and I hope before we adjourn some one will introduce a resolution to the effect that plumbers should be registered and certified.

Dr. Hugh Cowing: I have here the reports of country school buildings in my county. I think it would be descending from the sublime to the ridiculous to read these reports after the description of the model schoolhouse given by Mr. Gibson. I have printed blanks to be filled out. The teachers feel responsible to the trustees for sending him these reports. Nearly all the blanks I sent out came back to me filled out. Some of the information I received in that way was startling. For instance, I found that in Delaware County, outside of Muncie, instead of the old-fashioned method of scrubbing out the buildings every little while and using a great deal of hot water and a broom, that the method now was to scrub the floor once a year and then to keep it oiled. You can have your

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own idea as to what results you would get in a sanitary way. To me the reports were a revelation.

Speaking of Dr. Bence's paper, I will say it took me twenty-five years to find out what was the matter with my eyes, and what caused my head to ache so much. I went through all the long tedious procession of ailments that comes to an astigmatic, hypermetrophic eye. I believe there is no higher duty we have to perform toward the children of the State than to get at this trouble and remedy it.

Dr. Powell: Last fall I started to make a systematic inspection of all the country schoolhouses in the county. I find that the conditions in my own county are much the same as those described in other counties. I think Dr. Ridpath's suggestion is a very valuable one. I would go further and suggest that some one in authority have plans prepared for an ideal country schoolhouse, and have copies prepared in such a manner that they can be placed in the hands of at least every County Health Officer, and then have every County Health Officer insist that all schoolhouses in the county be constructed as nearly as possible on this model.

I think we are working along a good line in the investigation of country schoolhouses. There are evils in both country and city schoolhouses, but I think the country schoolhouses need our attention most.

Dr. Cole, Greene County: I am in sympathy with Dr. Powell's views on this subject. A number of schoolhouses will be built in our county before school opens this fall, and I would like to have something of this kind to start them out in the right way.

Mr. Gibson: I had in mind something of this kind. I thought of furnishing a little cut and drawing and an outline specification of a small country schoolhouse. I will furnish this in connection with my paper.

Prof. Jones, State Superintendent of Public Instruction: I am very sorry I was not here in time to hear Mr. Gibson's paper. Mr. Gibson and I have had two or three conferences on this subject. I have undertaken the enormous task of inspecting the rural schools of the State of Indiana. I do not expect to get into every one, but I have already inspected from ten to twelve of what the county

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superintendents call average country schoolhouses in thirty counties. I think the chief improvement that has been made in the last twenty-five years in the architecture of country schoolhouses is that the cupola has been run up a little higher, and a little more stone trimming is put on the outside. The windows are in the same position, and the stove is in the middle of the floor, just as we had it twenty-five years ago. About two weeks ago I visited Porter County and found there the best country school buildings in the State. They spend money on them, and in one place they spent $5,000 on a one-room building. These buildings had basements, and one of them had a watercloset in the basement. The schoolroom was frescoed, not painted, and this was hand-work. But the great majority of country schoolhouses, as I said, are improved only on the outside. The interior is essentially the same as it was. It seems to me there is absolutely no excuse at the present time for a schoolhouse being finished on the inside with white, as has been done in years past. I found that by changing the color of the ceiling and side walls in one of the ward schools of Tipton to a good gray that headaches and other troubles were reduced a great deal. This was noticeable in both teachers and pupils.

The great trouble about the whole arrangement of the school is simply in sanitary conditions. I do not sympathize very much with the statement that the instruction in the schools is injurious to the pupils. The school is just like any other institution—it wavers between the right and the wrong. We all know more than we practice; we know better things than we do in the schools. The school is just now halting between the old notion of teaching the three R's and the notion of Dr. Dewey, of Chicago, that the school is a society, the place where the pupil lives, not where he is preparing to live. I think we will come to that idea some time.

I am preparing just now a paper on School Decoration and Sanitation. I expect to put a copy of this into the hands of each of the new Trustees as they take office in November, and also one in the hands of each superintendent. The subjects of sanitation and decoration will be considered in every institute during the coming year. The teachers, as a whole, know the principles of ventilation and heating, but there are a great many things that they do not know. I should think it was a part of the province of the various Health Boards to keep in touch with them, and insist that they ex-

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amine the hearing and the eyes of the pupils. I am in hearty sympathy with the members of this Board and the various boards of the State in this movement. I do trust, however, that moving out along this line that you will not take it for granted that the schools of the State are essentially bad; they are not; they are essentially good. We do not have as many pupils who break down in their health from the fact that they go to school as we do from the fact that they stay out at nights and go to parties and carouse around. I think Edward Bok, in his article, was wrong when he criticised the public school system. We agree that some things are bad, but they are not essentially bad. I think Mr. Gibson has some good views on the one-room school building. I have some plans for a one-room school building which are being published, and I shall be glad to distribute them when we get them from the printer. If I can do nothing more than to work with you toward getting better schools, I am sure we should do a great deal.

(A vote of thanks was given Professor Jones for his talk before the Conference.)

Dr. Hurty: I wish to speak of some experiences in regard to this matter of ventilation. Whenever you go into a schoolroom and there is the slightest odor, you may know that harm is being done; that they are there laying the foundation of diseases of the air passages in after years for a number of those pupils. I think a great deal of our consumption starts there.

In Evansville Professor Hester and the Superintendant had an up-hill fight with the people over this matter. They have insisted that every new schoolhouse be ventilated by power; that every new schoolhouse should be built exactly in accordance with the rules of hygiene. At the present time about one-half of the pupils are accommodated in such schoolhouses, with engines in the cellar, and engineers to run them. There are 121 rooms ventilated in this way, and 122 ventilated in the old way. They have on an average about 40 pupils to the room. What is the result? They have kept accurate record of the infectious and contagious diseases, and the absences of pupils due to coughs and colds, and the percentage of difference between the two sets of rooms is 30; that is, there are 30 per cent. more coughs, colds, diphtheria and scarlet fever in the old schoolhouses than there are in the new. Some pupils in each class

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of schools come from fine, well-built houses and some from miserably built houses. Not only is there less sickness in the well-built schools, but there is a progress there, something like 20 per cent., I think, better than in the ordinary schools. There we have something practical to go on. In schools that are not hygienic we waste our money, and, more than that, we waste our children's health and happiness. We can not afford to have these old schoolhouses. In speaking to the school authorities on this matter, I think it would be well for the Health Officers to accuse them of being extravagant, for they are; they are wasting the people's money, and they are wasting their children's health and strength.

We had a very strange experience near Lafayette. The schoolhouse was old, unsanitary and dangerous. The people in that district of Clark's Hill were determined to have a new schoolhouse. The money was voted for it, and everything was progressing finely when a man with no children, but with a thousand acres of land in that township, went around with a petition to be signed by the voters. He represented that the new schoolhouse would cost something like $40,000, and would be a terrible tax on the property-holders. He got a number of signers, and the Advisory Board backed down. Then they got Dr. Little, the County Health Officer, to condemn the building, and it was condemned. He came to us, and the State Board condemned it. Still the fight was such that this Trustee took down the condemning signs, took off the boards that Dr. Little had nailed up, and opened the school. But the community was so opposed that they did not send their children, and the matter came up in the court of Tippecanoe County, and condemnation proceedings were instituted and won, and the court condemned the building.

This points to the probability that when the matter is presented properly before the average court we can get these buildings condemned and shut up. A curious fact in connection with this suit was the ridicule which the lawyer on the other side poured out. It was contended that the lighting was not proper in this old school. The question was asked which way it should be in the room. It was explained that it should come over the left shoulder, and preferably from the rear. Now the lawyer on the other side—a man who had served in the Legislature of our State—thought that was one of the funniest things he had ever heard of, and ridiculed it.

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That will show what we have to contend with. But you must expect opposition of that character in this work.

Dr. Griffiths: I sometimes wonder at the ignorance and avarice displayed in the objections of the populace to these things. It is evident to anyone who will sit here and listen that there is a humanitarian spirit existing among the physicians of the State and among the Health Officers. If people could only see it, and could only be brought to the point of seeing that we are working for the betterment of humanity, it would be a good thing. When I see these discussions, when I see the motives that prompt the speakers in these discussions, and then contrast them with the ignorance and the greed and the grasping spirit for the dollars and cents displayed by the people, it is somewhat discouraging to the good Health Officer.

Dr. Fairfield: I have been pleased very much with the remarks that have been made. In speaking of ventilation, we have had this to occur in Anderson: One of the rooms was very defective in everything, and yet the students in that room were from some of the best families in Anderson, and the superintendent was puzzled at the low grading in the room. He thought it might be that the defect was in the teachers, so took one of the best teachers he had and put her in the room, but the results in the grading were the same. The grading was away below the other rooms, and the pupils were refractory and inattentive. We made a very critical examination of the ventilation. We had a pure air duct there from the basement, and it acted all right for all of the other rooms until we came to this one. Here we found that masons in building the schoolhouse had inadvertently clogged up the flue into this room. We had the obstruction removed, and the superintendent said that the grade of that room immediately began to come up.

I was impressed with Professor Jones's remarks about the decoration of the schoolrooms. It is a very broad question, and it would be a very hard matter for us to swing into line with our mixed ideas of art in this country. One decorator would come along and want to put in one kind of lines, and another one would come along and want to put in some other kind. If our teachers and educators could have some standard to give to our school commissioners, and have the schools decorated along those lines, all

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well and good. I believe painted walls are the best to have. The ordinary frescoing has an absorbing surface. In oil-treated walls of a dead color and no glare you have a nonabsorbing surface, and one that can be washed. I would give preference to the oil finish, and utterly condemn all frescoing.

MEDICAL INSPECTION OF SCHOOL CHILDREN.

PROF. SEVERANCE BURRAGE, PURDUE UNIVERSITY.

The public school is an essential feature of American community life, because it is the greatest safeguard, the strongest bulwark that our Government has for its protection and continued prosperity. In nearly every State in the Union school attendance is compulsory, a fact that becomes quite serious when we consider what bad conditions and unsanitary surroundings the teachers and children are too often compelled to endure. In short, while we must not look upon school life as a calamity because of certain unfortunate conditions, neither must we shut our eyes to the dangers that actually exist, particularly when these dangers may all be wiped out with comparative ease.

Among the more important dangerous factors that arise in the public schools, the following circumstances must have a place. The gathering of a large number of individuals into a more or less confined space is unfortunate, although necessary, because the vitality of the scholars and teachers is materially lowered, unless the methods of ventilation happen to be exceptionally good. The contact of children of all conditions and all classes of civilization, from well educated parents and the most ignorant, from the aristocratic as well as from the slums, all come together in the public school. The hats and coats of all of these children are hung side by side in the cloakroom, remaining in close contact for hours at a time. The common drinking cup, particularly when it is dipped into a general water bucket, is a simple method by which disease germs may be transmitted from the diseased to the healthy child. Promiscuous kissing on the part of the teacher may accomplish the same end. Swapping and borrowing books, lead pencils, or other schoolroom necessities that may have become infected, is another danger, and all of these, beside the possible unsanitary condition of the

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school building itself, particularly in the neighborhood of the so-called sanitaries. With all of these dangerous factors, and many more, entering into the average school life, it is extremely important that infected children be kept out of the school buildings; and furthermore, the conditions about the school should be such that the vitality of teachers and children be not impaired.

There are two measures by means of which all of these and many more dangers may be removed, viz., well-organized systems of sanitary and medical inspection, the former to apply to the school buildings and the latter to the school children.

The sanitary inspection of a schoolhouse should begin before the building is erected. Health Officers should insist that all schoolhouse plans be inspected and sanctioned by some competent authority, such as the State Board of Health. This process will save many costly blunders. After completion, too, the schoolhouses are in need of inspection, and after they have been occupied systematic inspection is a necessity if we consider the health of the children and teachers of any value.

In my opinion the sanitary inspector of schoolhouses should have some such duties as the following: He should visit each of the various buildings in his district so many times a month, say two or three. These visits should not be made on regular days nor upon stated hours, but should be unannounced and unexpected, janitors, teachers and children alike being ready at any moment for the inspection. In this way he would not find everything polished up in expectation of his visit, but he would find things in their normal or average condition.

He should make it a point during his visit, to examine carefully the condition of the heating and ventilating systems, and note whether or not the janitor or engineer be managing it satisfactorily, keeping the temperature and air in the schoolrooms as they should be. He should notice also the general cleanliness of the floors and yards, particularly the condition of the sanitaries or outhouses, and the condition of and means of distributing the water supply. All these conditions, good and bad, should be reported to some authority, perhaps the Superintendent of Schools, perhaps the Health Officer.

Thus a systematic and complete sanitary inspection of the school buildings would tend to bring about conditions that would keep the

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vitality of the pupils and teachers alike up to its maximum tone, and in this way render them more resistant to all diseases, and also keep them in a condition in which they will accomplish the maximum amount of work.

But this process of sanitary inspection, valuable as it is, can not by itself keep out contagious and infectious diseases; it can not discover those children whose eyes or ears need special attention; nor can it find out those teachers who may be suffering from consumption or some other form of transmissible disease. More emphasis should be laid, then, on the medical inspection of the school children; for by this method only, in conjunction with others, can all these dangers be removed or prevented, and the necessity of closing the schools for a longer or a shorter time be wholly removed.

Although the details of medical inspection may differ somewhat in different localities, in accordance with the size of community, the amount of funds at the disposal for the purpose, and so on, the general features should be about the same. The process should be carried on in some such way as this: The principal of each school should report to a medical inspector each morning all pupils in his building who are in any way ailing with complaints such as headache, sore throat, pain in the stomach, or who are feeling at all under the weather. These pupils should be examined, and if the inspector finds symptoms that indicate even to a slight degree the early stage of any of the transmissible diseases, the child should be sent home, not to return until he possesses a certificate of health from the family physician. Under no conditions should the inspector attempt to give treatment. He must leave that all to the family physician.

In this way, that is, the teachers working in co-operation with the medical inspectors, the most satisfactory results will be obtained, the teachers being in the best position to discover cases of illness among her pupils, knowing the children so well that she can readily pick out those who look ill, even if such pupils had failed to reply in the affirmative to the question. On the other hand the inspector lends an official air to the process, aside from the authority and respect which he commands as a physician, and so the whole responsibility does not have to be borne by the teacher.

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Each inspector should have but few schools to look after, because there should be no delay in the inspection and exclusion of those children who need attention.

Medical inspection similar to that just described was inaugurated in Boston, November 1, 1894, and has been in successful operation ever since. Although I had the pleasure of describing more or less accurately the Boston system before this convention two years ago, in a paper on School Epidemics, I regard it such a good working model that I shall take the liberty of repeating it here this year. That the system is not only of great value as a public health measure for disease prevention, but that it is also practicable from the standpoint of municipal government is shown by the fact that it has operated in the city of Boston without a break, ever since its inauguration.

I here quote Dr. Samuel H. Durgin, Chairman of the Boston Board of Health, describing how their system is operated:

The Board of Health divided the city into fifty districts, giving an average of about four schoolhouses and fourteen hundred pupils to each district. No difficulty was experienced in finding well qualified and discreet physicians who would undertake the duties prescribed; and the Board selected and appointed one physician for each district, with a salary of $200 a year. His duty was to make a visit to each master's school daily, soon after the beginning of the morning session. The master receives from each of the teachers in his district early reports as to the appearance of illness in any pupil in his charge. These reports are given to the visiting physician, who at once examines the reported children and makes a record of his diagnosis and action in books furnished by the Board of Health for this purpose, and kept in the custody of the master. If the visiting physician finds the child too ill, from any cause, to remain in school, he advises the teacher to send the child home for the observation and care of its parents and family physician. If the illness is from a contagious disease, the child is ordered home and the case reported to the Board of Health. The disposition of the sick child while at home and the proper isolation in cases where contagious diseases develop in such children, as well as giving them a warrant for returning to the school, depend principally upon the report of the school inspector.*

For the fourteen months from November 1, 1894, to December 31, 1895, in Boston, 16,790 children were reported by the teachers and examined by the medical inspectors. Of these, 6,035, about 36 per cent., were found to be not sick; 10,737, the other 64 per cent., were ill. Of tnese, 2,041, or 19 per cent., were sick enough to be sent home. About 22 per cent. of these

*Paper read at annual meeting of the Massachusetts Medical Society, June 9, 1897, by Dr. Samuel H. Durgin.

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sick ones sent home, or 2.7 per cent. of the total number examined, proved to be cases of infectious disease, specifically as follows:

Diphtheria	77
Scarlet fever	28
Measles	116
Chickenpox	28
Mumps	47
Whooping cough	33
Pediculosis	69
Scabies	47
Congenital syphilis	8
	453

In 1895, 8,964 scholars were examined; 1,156, over 12 per cent., were sent home; and 23 per cent. of those sent home, or 2.9 per cent. of those examined, were cases of infectious disease.

In the Report of 1898, the last to which I have access, the medical inspectors report the following statistics:

Number of specific infectious diseases	275
Oral and respiratory	2,722
Diseases of the ear	102
Diseases of the eye	402
Diseases of the skin	16,709
Miscellaneous diseases	2,912
	23,122
Negative examinations for pediculi	16,880
	40,002

Furthermore their work may be summarized as follows:

Number of pupils examined in the schools	50,991
Number recommended to be sent home	7,896
Consultations with teachers about pupils returning to school	1,783

Boston, then, may be looked upon as the pioneer in this field of work, that is, in introducing medical inspection in its practical form as a city health protective measure. Previous to that time nothing of the kind had been tried except on a very small scale and for a limited time in individual schoolhouses and parochial schools in Boston and Philadelphia.

Chicago followed Boston in 1896, and as far as her resources would permit has been doing a grand work ever since. Lacking a

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special appropriation for the work, the Health Commissioner placed it in the hands of the regular medical inspectors, who depended for their information upon the notifications from physicians of cases of transmissible diseases. If the patient thus reported had been attending school, the school was at once visited, precautionary measures taken against the spread of the disease, and any unsanitary conditions remedied. During the school year of 1896-97, even with their necessarily small force of inspectors, 1,181 visits were made to the schools; 4,023 cases of contagious and infectious diseases were located and taken charge of for preventive purposes; and unsanitary conditions in sixty-three public schools were reported to the Board of Education, and similar conditions remedied in fifty-three homes of patients.

For Chicago's most recent experience I am indebted to Dr. Arthur R. Reynolds, Health Commissioner of Chicago, who has kindly sent me data within the last few days. Among other things, he says that "the Board of Education in the beginning of last winter appropriated money for the appointment of fifty medical inspectors of schools. An examination was held in December, under the rules of the Civil Service Commission, to which there were 250 applications. The salary voted for the inspectors was $50 per month for eight months in the year, which includes practically the entire school year with the exception of the month of June. The principals of the schools were instructed to detain all children who had been absent from school four days or more for medical inspection. The inspectors were instructed not to examine any other pupils, and the Commissioner of Health was authorized to take charge of the work. * * * The inspection was stopped in April because the Board of Education did not feel that they had the funds to continue the work for the entire eight months of the year. The work will be resumed in September and continued as long as the funds hold out."

Dr. Reynolds comments on their system as follows: "We have over two hundred and fifty schools, and fifty inspectors is not enough, as five schools were assigned to each inspector, necessitating of him a great deal of travel, and much delay to the pupils."

Dr. Reynolds very kindly inclosed the blanks that are used in the Chicago work, and furthermore, he has sent me the blanks actually filled out, from January 1 to April 12, the date when the

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inspection was stopped, and these blanks I shall be glad to show you as a part of my contribution, although really they are from Dr. Reynolds.

To sum up the work in figures, we learn that the number of school children examined was (between January 1 and April 12) 76,805; total number of children excluded, 4,539, or 5.9 per cent. This number, studied carefully with the kinds of diseases for which the children were excluded, will readily show how valuable a disease-preventing measure Chicago has got. It is to be greatly regretted that they have not sufficient funds to carry it through the year.

New York followed the example of Boston and Chicago in 1897, after having given the system a short trial in 1896. An annual appropriation of $47,500 is available, affording salaries of $300 to 149 inspectors. The system is somewhat different in New York, as it includes all corporate, private, and parochial schools, as any thorough and complete preventive measure should. Out of a total of 63,812 children examined during the first three months, 4,183, or over 6 per cent., were excluded for contagious diseases. Parasitic diseases of the head numbered 2,627, or 6 per cent. of the total number of contagious diseases discovered by the inspection. The New York inspector is obliged to visit his round of schools at nine o'clock every morning during the session. Upon assembling in the morning, every child who appears ill, or who presents himself for the first time after being absent, is sent to a special room where he is inspected. If found attacked by a contagious or infectious disease, or not fully recovered from one, the inspector sends him home with a note to that effect, and at the same time he is obliged to inform the Board of Health of the fact. In addition to these school inspectors, New York has a number of physicians whose duty it is to examine all applicants for teachers in the public schools.

Philadelphia fell into line in 1898, when the Board of Health, at the instance of the Public Education Association, commenced work with only fifteen medical inspectors; but as each visited only two schools in a day, each school was not reached more than once in two to four weeks. Naturally they have not accomplished as much as the above mentioned cities. Nevertheless, during the thirteen weeks from October, 1898, to February, 1899, more than 1,000

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cases of disease were tabulated from the public schools, notably skin diseases, inflammation of the ear, and diseases of the oral and respiratory tract.

St. Louis availed herself of the opportunity to study medical inspection of school children by having a volunteer inspection of ten of the public schools made under the auspices of the medical society of City Hospital Alumni, from October 10 to December 25, 1898. All of the inspections were made voluntarily by members of this society, and in that sixty days' trial, nearly one-half of the dismissals were due to cases of acute infectious diseases.

I have occupied your time and patience with more or less complete descriptions of medical inspection in these large cities, and given you the statistics connected therewith because I felt that if I did this, that you would be more impressed with the fact that the systems are no longer looked upon as experiments; that they are practical, and that with so many cases of transmissible diseases excluded from the schools they must have a great value from the standpoint of the public health.

In addition to this, too, they have a decided educational value, and I know of no better way to close my paper than to quote Superintendent of Schools W. B. Powell,* of Washington, on this subject:

The most important argument in favor of medical inspection of schools and school children is the educational benefit it would be to the community at large. Its direct and naturally aggressive tendency would be to make knowledge of the common laws of health universal, and to create an interest in the study of social life.

Intelligence respecting the effects of modes of living on length of life, on happiness of life, and on cost of living is very meager, especially among the lower classes of society. The school has reason to know and to understand the disadvantages of this condition, economically and morally. Knowledge of these subjects would grow rapidly if the school would take hold of the matter purposively, and would cause people to begin knowledge-getting in experience. Medical inspection would result in giving knowledge of conditions and causes, and would suggest changes in modes of living with reasons for the same. These would cause thought and would give information to satisfy the same, which, with the purposive effect induced in the realization of suggestion, would educate in the most effectual way. This experience would create interest which in turn would insure further knowledge-seeking by means of reading, attending lectures, by inquiry, and in many cases by original investigation and

*Proceedings National Educational Association, 1898, p. 459.

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experiment. Is it not the duty of the school to arouse society to intelligent thought on the importance of better modes of life? By no other means can this be done so effectively. Is it not the duty of the school to train people to live better? Is not this the true purpose of the school? The logical place to begin this is with the physical life of society, the one phase of life that has been the most ignored by our educational methods, because least thought about, and, until now, least understood.

Department of Health. **Board of Education.**

SCHOOL MEDICAL INSPECTION,
CITY OF CHICAGO.

Chicago, ...190..

School .....

Name of Pupil .....

Address .....

is ordered to temporarily discontinue attendance at school, for the following reasons: .....

.....

.....

Medical Inspector.

☞ **(This card to be given to pupils to present to parents.)**

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Monthly Report of Medical Inspection of Schools.

Month Ended January 31, 1900.

DATE.	Sex.	Diphtheria.		Scarlet Fever.		Measles.		Whooping Cough.		Chicken Pox.		Tonsilitis.		Mumps.		Purulent Sore Eyes.		Impetigo.		Pediculosis.		Ringworm.		Eczema.		Other Diseases.		Total Exclusions.		Total No. of Pupils Examined.	No. of Inspectors Reporting.	No. of Cultures Taken.
		M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F			
Weeks ended—																																
January 12	M	17	...	21	...	32	...	2	...	21	...	25	...	15	...	2	...	7	...	5	...	2	...	2	...	4	...	155	...			
	F	...	19	...	22	...	33	...	2	...	23	...	27	...	17	...	2	...	8	...	6	...	3	...	2	...	4	...	168	3,054	34	
January 19	M	14	...	19	...	19	...	2	...	19	...	42	...	19	...	3	...	12	...	14	...	4	...	1	...	6	...	174	...			
	F	...	15	...	21	...	21	...	2	...	20	...	43	...	20	...	3	...	14	...	15	...	5	...	2	...	9	...	190	4,537	41	
January 26	M	12	...	28	...	27	...	1	...	36	...	59	...	32	...	3	...	8	...	6	...	3	...	2	...	3	...	220	...			
	F	...	8	...	25	...	28	...	1	...	27	...	66	...	30	...	3	...	10	...	21	...	4	...	4	...	5	...	232	7,376	46	
January 29 to 31	M	5	...	13	...	15	...	2	...	21	...	20	...	15	...	2	...	5	...	4	...	3	...	...	...	4	...	109	...			
	F	...	4	...	10	...	24	...	...	...	17	...	36	...	16	...	2	...	1	...	6	...	3	...	...	...	6	...	131	3,188	49	
.....	M	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
	F	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
Total	M	48	...	81	...	93	...	7	...	97	...	146	...	81	...	10	...	32	...	29	...	12	...	5	...	17	...	658	...			
	F	...	46	...	84	...	106	...	5	...	87	...	172	...	83	...	10	...	33	...	48	...	15	...	8	...	24	...	721	18,155	42	140
Total	....	94		165		199		12		184		318		164		20		65		77		27		13		41		1,379		18,155	42	140
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JOHN R. NEELY, M. D.

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Monthly Report of Medical Inspection of Schools.

Month Ended February 28, 1900.

DATE.	Sex.	Diphtheria.		Scarlet Fever.		Measles.		Whooping Cough.		Chicken Pox.		Tonsilitis.		Mumps.		Purulent Sore Eyes.		Impetigo.		Pediculosis.		Ringworm.		Eczema		Other Diseases.		Total Exclusions.		Total No. of Pupils Examined.	No. of Inspectors Reporting.	No. of Cultures Taken.
Weeks ended—		M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F			
February 1 and 2	M	...	...	1	...	3	...	...	...	3	...	6	...	6	...	...	...	1	...	1	...	...	...	1	...	...	...	22	...			
	F	...	3	...	1	...	...	...	...	...	1	...	6	...	5	...	1	...	...	...	8	...	1	...	...	...	3	...	29	1,060	49	21
February 9	M	5	...	8	...	23	...	1	...	40	...	32	...	52	...	2	...	11	...	...	8	...	2	...	2	...	5	191	...			
	F	...	5	...	16	...	17	...	1	...	26	...	27	...	59	...	2	...	5	...	17	...	1	...	3	...	1	...	180	8,493	49	80
February 16	M	3	...	16	...	16	...	4	...	31	...	18	...	55	...	1	...	7	...	6	...	1	...	4	...	4	...	166	...			
	F	...	10	...	16	...	13	...	1	...	27	...	17	...	46	...	1	...	6	...	10	...	2	...	2	...	4	...	155	5,969	49	61
February 23	M	3	...	15	...	14	...	3	...	31	...	15	...	46	...	4	...	11	...	2	...	4	...	...	...	3	...	151	...			
	F	...	7	...	7	...	18	...	1	...	25	...	21	...	3	...	2	...	6	...	13	...	3	...	1	...	7	...	142	4,657	50	42
February 26 to 28	M	3	...	17	...	16	...	2	...	15	...	12	...	37	...	...	...	4	...	...	...	6	...	...	...	2	...	114	...			
	F	...	2	...	7	...	15	...	1	...	18	...	10	...	24	...	...	...	2	...	8	...	1	...	...	...	4	...	92	3,209	49	86
Total	M	14	...	57	...	72	...	10	...	120	...	83	...	196	...	7	...	34	...	17	...	13	...	7	...	14	...	644	...			
	F	...	27	...	47	...	63	...	4	...	97	...	81	...	165	...	6	...	19	...	56	...	8	...	6	...	19	...	598	23,388	49	240
Total	....	41		104		135		14		217		164		361		13		53		73		21		13		33		1,242		23,388	49	240
Month ending January 31	....	94		105		199		12		184		318		164		20		65		77		27		13		41		1,379		18,155	49	140
.....	....	...		...		...		...		...		...		...		...		...		...		...		...		...		...		...	...	...
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JOHN R. NEELY, M.D.

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Monthly Report of Medical Inspection of Schools.

Month Ended March 31, 1900.

DATE.	Sex.	Diphtheria.		Scarlet Fever.		Measles.		Whooping Cough.		Chicken Pox.		Tonsilitis.		Mumps.		Purulent Sore Eyes.		Impetigo.		Pediculosis.		Ringworm.		Eczema.		Other Diseases.		Total Exclusions.		Total No. of Pupils Examined.	No. of Inspectors Reporting.	No. of Cultures Taken.
Weeks ended—		M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F			
March 1 and 2	M	...	...	3	...	4	...	1	...	...	...	2	...	4	...	...	...	2	...	...	...	1	...	1	...	1	...	19	...			
	F	...	1	...	2	...	1	...	...	...	1	...	4	...	12	...	...	...	1	...	1	...	...	...	1	...	...	...	24	870	49	10
March 9	M	2	...	14	...	23	...	2	...	32	...	21	...	47	...	2	...	10	...	3	...	1	...	1	...	1	...	159	...			
	F	...	2	...	6	...	23	...	...	...	21	...	27	...	45	...	2	...	4	...	17	...	3	...	...	...	1	...	151	6,537	49	72
March 16	M	6	...	9	...	24	...	2	...	25	...	15	...	64	...	2	...	6	...	3	...	...	...	2	...	6	...	164	...			
	F	...	2	...	9	...	40	...	3	...	24	...	15	...	59	...	1	...	3	...	12	...	2	...	1	...	7	...	178	6,131	49	61
March 23	M	7	...	9	...	28	...	1	...	21	...	13	...	50	...	1	...	9	...	4	...	3	...	5	...	8	...	159	...			
	F	...	4	...	11	...	26	...	1	...	31	...	29	...	47	...	2	...	2	...	12	...	3	...	...	...	12	...	180	5,793	49	67
March 30	M	1	...	10	...	27	...	5	...	22	...	8	...	44	...	4	...	11	...	5	...	2	...	2	...	3	...	144	...			
	F	...	2	...	7	...	28	...	2	...	23	...	11	...	60	...	1	...	6	...	11	...	4	...	1	...	...	...	156	5,583	49	47
Total	M	16	...	45	...	106	...	11	...	100	...	59	...	209	...	9	...	38	...	15	...	7	...	11	...	19	...	645	...			
	F	...	11	...	35	...	118	...	6	...	100	...	86	...	223	...	6	...	16	...	53	...	12	...	3	...	20	...	689	24,914	49	257
Total	....	27		80		224		17		200		145		432		15		54		68		19		14		39		1,334		24,914	49	257
Month ended February 27	....	41		104		135		14		217		164		361		13		53		73		21		13		33		1,242		23,388	49	240
Month ended January 31	....	94		165		199		12		184		318		164		20		65		77		27		13		41		1,379		18,155	42	140
.....	....	.....		.....		.....		.....		.....		.....		.....		.....		.....		.....		.....		.....		.....		.....		.....	....	....
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JOHN R. NEELY, M. D.

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Monthly Report of Medical Inspection of Schools.

*Month Ended April 12, 1900.

DATE.	Sex.	Diphtheria.		Scarlet Fever.		Measles.		Whooping Cough.		Chicken Pox.		Tonsilitis.		Mumps.		Purulent Sore Eyes.		Impetigo.		Pediculosis.		Ringworm.		Eczema.		Other Diseases.		Total Exclusions.		Total No. of Pupils Examined.	No. of Inspectors Reporting.	No. of Cultures Taken.
		M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F			
Weeks ended—																																
April 6	M	3	...	13	...	23	...	2	...	16	...	17	...	54	...	2	...	9	...	2	...	3	...	3	...	4	...	151	...			
	F	...	5	...	15	...	22	...	6	...	24	...	21	...	55	...	...	...	6	...	12	...	1	...	4	...	11	...	182	6,199	49	46
April 12	M	...	...	10	...	25	...	...	...	9	...	13	...	58	...	3	...	5	...	1	...	2	...	...	...	4	...	130	...			
	F	...	...	...	14	...	20	...	4	...	20	...	11	...	36	...	2	...	1	...	8	...	3	...	1	...	1	...	121	4,149	49	28
.....	M	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
	F	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
.....	M	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
	F	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
.....	M	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
	F	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
Total	M	3	...	23	...	48	...	2	...	25	...	30	...	112	...	5	...	14	...	3	...	5	...	3	...	8	...	281	...			
	F	...	5	...	29	...	42	...	10	...	44	...	32	...	91	...	2	...	7	...	20	...	4	...	5	...	12	...	303	10,348	49	74
Total		8		52		90		12		69		62		203		7		21		23		9		8		20		584		10,348	49	74
Month ended March 31		27		80		224		17		200		145		432		15		54		68		19		14		39		1,334		24,914	49	257
Month ended February 28		41		104		135		14		217		164		361		13		53		73		21		13		33		1,242		23,388	49	240
Month ended January 31		94		165		199		12		184		318		164		20		65		77		27		13		41		1,379		18,155	42	140
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*Inspection discontinued April 12.

JOHN R. NEELY, M. D.

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DISTRICT NO. ..... DATE, ...

Daily report of pupils excluded from school after medical inspection.

DISEASES.	Sex.	NAMES OF SCHOOLS.							Totals.	*Total No. of Pupils Examined.
Diphtheria.....	M	....	....	....	....	....	....	....	....	....
	F	....	....	....	....	....	....	....	....	....
Scarlet Fever.....	M	....	....	....	....	....	....	....	....	....
	F	....	....	....	....	....	....	....	....	....
Measles	M	....	....	....	....	....	....	....	....	....
	F	....	....	....	....	....	....	....	....	....
Whooping Cough ...	M	....	....	....	....	....	....	....	....	....
	F	....	....	....	....	....	....	....	....	....
Chicken Pox.....	M	....	....	....	....	....	....	....	....	....
	F	....	....	....	....	....	....	....	....	....
Tonsilitis	M	....	....	....	....	....	....	....	....	....
	F	....	....	....	....	....	....	....	....	....
Mumps.....	M	....	....	....	....	....	....	....	....	....
	F	....	....	....	....	....	....	....	....	....
Purulent Sore Eyes	M	....	....	....	....	....	....	....	....	....
	F	....	....	....	....	....	....	....	....	....
OTHER DISEASES.										
.....	M	....	....	....	....	....	....	....	....	....
	F	....	....	....	....	....	....	....	....	....
.....	M	....	....	....	....	....	....	....	....	....
	F	....	....	....	....	....	....	....	....	....
.....	M	....	....	....	....	....	....	....	....	....
	F	....	....	....	....	....	....	....	....	....
.....	M	....	....	....	....	....	....	....	....	....
	F	....	....	....	....	....	....	....	....	....
Totals		....	....	....	....	....	....	....	....	....

Number of Cultures made.... .....

.....M. D.
Medical Inspector.

This report to be made in duplicate and mailed to Department of Health.

*Total examinations mean total number examined, including exclusions.

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NAMES OF PUPILS EXCLUDED FROM SCHOOL _____ 1900.

Name of Pupil.	Residence.	Age.	School.	Cause of Exclusion.	*A	*P
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						

*In column "A" make check mark if pupil was examined because of 4 days' absence. Check in column "P" if pupil was referred by Principal for any other reason.

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SMALLPOX.

DR. CARL PROEGLER.

To form a correct diagnosis of smallpox, it is necessary to have had experience in diagnosing quite a large number of cases, and in mild cases, like those now prevailing in the United States in endemic and epidemic form, it takes an expert to come to a correct decision. I have seen in my lifetime many thousand cases of variola; I saw them in an epidemic in Hong Kong, China, also in Buenos Ayres, South America. After the surrender of Metz by the French in 1870 we found nearly 15,000 cases, half of which were of the hemorrhagic variety. The Chicago epidemic of 1871-72 was also seen by me, not to speak of smaller epidemics in Illinois and Indiana.

The first appearances of variola are knot-like projections in the skin, which a careless observer might take for measles. The projections are developed in the middle layer of the epidermis by a fluid which invades the whole net-work of epithelial cells and presses them outward. According to Kluge the fluid contents of these granules at first contain no pus cells, but after a time all the alocolae spaces are filled with pus. It is characteristic for a variola pustule to have at its base an umbilicated tapering or dent. The contents of these pustules are always purulent, or, to make it more clear, they contain nothing else than pus. These pustules are always umbilicated and always surrounded by two distinct inflammatory areolae. This is so characteristic that a diagnosis may be made from these signs alone.

We distinguish variola discretae, coherentes and confluentes, according to the varieties. We also have variolae hemorrhagicae sen cruentae (black pox), which is caused by blood extravasation in the pustules. In severe epidemics, as for instance at Metz where nourishment was almost nil, scorbut and dyscrasia of the blood produced pyaemic conditions, and persons so afflicted literally rotted away.

Smallpox is found in the mucous membrane of the mouth and throat, also on the outer edges of the tongue and between the lower lips, very often interfering with deglutition and mastication. We

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also find smallpox on the citiary edge of the eyes, and severe conjunctivitis is also always present.

The period of incubation is between 10 and 14 days, sometimes between 5 and 20. No outward symptoms in the very early stages are noticed, though with a prevailing epidemic around us we may surmise variola.

The stadium prodromorum is generally ushered in by a chill, followed by quickly rising temperature, sometimes from 102 to 104, the fever lasting from two to five days. Headache and backache are in this stage nearly always present. Delirum, vertigo and a general malaises, amorexia, a thickly coated tongue, nausea and vomiting are generally present. Another constant sign in this stage is an enlargement of the spleen. The eyes are swollen and painful and light is intolerable.

After the end of these initial symptoms we invariably find red nodules on the relum palatae, and also on the mucous membrane of the mouth. As careless observers have sometimes diagnosed typhoid fever in this stage it is well to remember that a careful examination of the mouth will settle the diagnosis.

The eruptive stage usually begins after three days, and the eruption begins on the face. A firm shot-like sensation is conveyed to the finger by the papules. The exanthema progresses from the scalp to the soles of the feet. There is also a tendency of the eruption to appear more pronounced on exposed surfaces. The inflammatory areolae around the pustules, however slight, is characteristic of smallpox only. The exanthema of no other disease presents this double areola.

The appearance of the pustules within the mouth, on the eye, on the palm of the hands and the soles of the feet are certainly valuable corroborative symptoms.

As soon as the eruption is about two or three days old, a perceptible, never to be forgotten odor develops from the patient, and is seldom absent. This smell is one of the most valuable signs for diagnosis, and I am perfectly astounded that it is hardly mentioned in any of our text books. But at the same time I want to emphasize that this smell is sometimes not present in mild forms of the disease and occasionally is absent in well marked cases. When present it is a valuable diagnostic symptom. (In the case of Mrs.

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Axt, who has recently been released from quarantine here in Fort Wayne, I smelled smallpox before I entered the house.)

The last stage is the stage of excecation and decrustations. The pus contained in the pustules dries up to brown crusts, which afterwards fall off from their base, leaving scars, the well-known pock marks.

Bacteriological examinations have so far revealed nothing regarding the nature of the contagion of smallpox.

To the keen observer smallpox can never be confounded with anything else, and it is certainly humiliating for the medical profession that so many diagnostic errors have been made. The common error among physicians all over the United States where smallpox has appeared is to substitute chickenpox for variola, though there is not the slightest affinity between them. Varicella is a disease sin generis. In a large experience with smallpox I have never seen a single case of chickenpox in an adult, and it is certainly as rare in adults as a white elephant in Siam. Before you make your diagnosis, find what disease is going around.

We find varicella epidemic and sporadic, and children will get chickenpox even when vaccinated, which fact ought to be well remembered. The period of incubation is about fourteen days. In some of the cases we notice fever of a mild type, in other cases hardly any. The exanthema consists of sparsely appearing vesicles, which are seen first on the scalp, especially on the outer edges of the hair and the hairy part of the scalp. The eruption spreads in a few hours all over the body, contrary to the eruption of smallpox which takes from two to three days. The vesicles rest on a very light hyperaemic bases, are never umbilicated, have no inflammatory areolae and the contents of the vesicle contains nothing else than a water-like serum, extremely seldom pus. After twelve hours the vesicles burst, collapse, and dry up to a kind of crust. The marks left behind are always even and disappear entirely in a few days without leaving any trace behind. Chickenpox is a very benign disease and rarely calls for medical treatment. It sometimes attacks children more than once.

Impetigocontagiosa has also been classed among the diseases which might be confounded with smallpox. Two renowned skin specialists of St. Louis made this error, though they were afterward

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convinced by other physicians that the disease in question was nothing else than smallpox. It passes my comprehension that such a thing is possible. We older physicians designated the disease impetigo scrophulosom, thus indicating by its appellation that it only appears in the underfed and poor, whereas smallpox attacks rich and poor, clean and unclean, sick and well. Impetigo is always due to inoculation of contagious pus, independently from the source. Scratching leads to purulent lesions in children, hence pediculi capitis are a very common cause of impetigo. Crooker mentions the case of a medical student with impetigo, due to the irritation of the leptus autumnales (harvest bug) and isolated microscopically the micrococci of impetigo. It takes quite a stretch of imagination to confound impetigo with smallpox.

Syphiloderma is also confounded with smallpox, but it is rather ingenuous to come to such a conclusion. The diagnosis of syphilis is made from typical symptoms, which are only found in syphilis. The objective symptoms and conditions will always decide a diagnosis.

Inoculous and papulous exanthema, papular eruptions, as lenticular, miliary, moist, annular, psoriasis, etc., must be recognized by every diagnostician, and an error in calling smallpox a syphilitic eruption is certainly very farfetched and can not occur with a careful diagnostician.

The only safety against smallpox lies in vaccination and revaccination, with prompt isolation and quarantine of all suspected cases. The only thoroughly vaccinated country in the world is Germany, and cases of smallpox rarely occur there.

The fine paid by the ignorant unvaccinated population of Montreal in 1885 was over 3,000 deaths out of 10,000 cases, and 2,500 of these were children under ten years. A slaughter of guiltless innocence unparalleled in the history of civilization. And all this because one case of smallpox from Chicago stopped three weeks in a Montreal hospital where it was treated in the common ward as chickenpox.

A parallel to those experiences is the epidemic in Scipio Township, Allen County, which shows again gross ignorance of some physicians. Mr. Eager, visiting in Delaware, Delaware County, Ohio, traveled all the way back in a wagon to Indiana. An eruption made its appearance on his face, hands, etc. He consulted

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numerous physicians who promptly diagnosed his case as chickenpox. The age of Mr. Eager is 62. After coming home he slept with his son, Major Eager, the latter getting smallpox, promptly diagnosed by me as such and verified by Dr. Hurty, Secretary State Board of Health. Ten days after Mr. Eager's departure from Delaware, Ohio, the State Board of Health of Ohio closed the female seminary there, containing 200 pupils, on account of smallpox; yet chickenpox was diagnosed—commentary is unnecessary. In time 41 persons were afflicted with the disease, which still was called by ignoramuses chickenpox. Not a single person attacked was ever vaccinated, and only by strict quarantine and prompt measures of vaccination, isolation, etc., instituted by me through Dr. Lomas and diligently and faithfully carried out by him, avoided a catastrophe. Three other cases of smallpox have since been diagnosed by me in Eel River Township and Dr. Lomas placed in attendance.

Strict orders have already been given to all public and parochial schools for thorough vaccination, and only by these means may we escape another scourge which certainly, as it always did after a periodicity of mildness, will reappear in a virulent form.

Nobody is immune from smallpox, except persons with chronic eczema. The reason why eczema patients do not contract the disease is still shrouded in mystery.

For all persons who daily come in contact with smallpox patients, as physicians and nurses do, frequent vaccination and re-vaccination is necessary. In the last four months I vaccinated myself five times, and only the last vaccination was successful, thus showing that I would have been, after all, a good subject for smallpox. A revaccination of this kind is generally good for seven years under ordinary circumstances.

Adjournment.

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THIRD SESSION.

Wednesday, May 9, 9:30 a. m.

Dr. Taylor, of Crawfordsville, presided in the absence of Dr. Davis, President of the State Board of Health.

Dr. Hurty: I wish to take this opportunity to tell you the plans and ideas of the State Board of Health at the present time in extending the work in this State with the next Legislature. We recognize that we have a very good law, but it is not good enough. But it certainly would not be politic at this time to try to get any changes in the law. It has only been in operation since last October, and it would be quite inopportune to bring any amendments before the Legislature.

We have the food law upon our hands. We have done nothing with it; we can not do anything with it until the Legislature comes to our aid with an appropriation. The sole proposition which will be brought before the Legislature will be the establishment of a laboratory of hygiene in conjunction with the State Board of Health. It would be for the purpose of making food analyses, examination of water, blood examinations, diphtheria, and bacteriological work can be done. You can send food and all sorts of specimens to such laboratory for examination free of charge. The work will be for the public good.

There is another use of the laboratory which we must not neglect to mention. There are in this State industries representing a capital of $25,000,000 which are polluting the streams of this State. We must not lose these industries, and we must not lose the streams. It is within the province of science to save both. A laboratory of hygiene wherein the problem of the proper sanitary disposal of the waste from these industries can be solved is what is wanting. These industries pay in wages $7,000,000 a year. They pay in taxes over a quarter of a million dollars each year, and they use up in raw material over $20,000,000 worth every year. Obviously it will not do to extinguish these industries for the preservation of the streams, and yet it will not do to destroy the streams. Science alone can solve the problem of the disposal of the refuse, and the State will have to do that work. The private industries can

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not do it, even in that way. That will be the very first argument that will be brought to you when you tell your legislators that a laboratory of hygiene will be required. They will say, as ex-Attorney-General Smith said to me, "Let them find methods for the disposal of their own refuse." It matters not how much money they spend in trying to discover a method for the sanitary disposal of refuse, that method will have to grind through the courts just the same, and until it receives the approval of the State they do not know whether their money has been spent in vain or not. The State Board of Health should have this laboratory. The statutes should give the right of entry to all these industries. We could then inspect, take the refuse, bring it to the laboratory, analyze it and devise methods for its proper sanitary disposal. Then the statute would command that the Board would go to the courts in the county in which the particular industry is located and cite to appear before the court the owners of that industry and prove that the process proposed is practicable and practical. Then the court would order the owners of the factory to put in that process. When that is done the process has the approval of the State and of the courts, and there is not an industry in this State that would not willingly and gladly put in such a process.

The strawboard works are the great offenders, but we have also the tin plate mills, the tanneries, the starch works, the breweries, and others. Our present laws, if enforced, would extinguish these vast industries absolutely. The Appellate Court has awarded $2,000 damages against one of these industries near Muncie to some farmers. It seems as if these industries will have to go if the farmers will keep on suing, and we can save these industries as well as not.

I think this argument will be more potent with your Legislators than any other. The argument in favor of pure food will also be potent. The law says that adulterated food shall not be sold. How can we know what food is adulterated without a laboratory? Without the laboratory there can be no enforcement of the food law. The present law says that the State Board shall collect the statistics and study them and enforce the laws. This can not be done without the laboratory. A State Board of Health without a laboratory is a back number. Other States have them. Massachusetts has two, and the Board has $168,000 a year to spend. Indeed,

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the work is considered so valuable that the treasury of the State is practically open to its work. Of course, we do not ask anything like that. But we will ask a larger appropriation than ever before, and we want you to be prepared to make the right arguments for it. This is not wanted for the members of the Board; they will not ask for a penny; the force in the office, of course, must be paid. What we want to do is to do health work, to publish health bulletins, to get them into every home in the State that is afflicted. We have not been able to put out a single bulletin on consumption or typhoid fever; our circulars are limited to two or three at present, one on smallpox, one on scarlet fever and one on diphtheria. Every month when we receive the death certificates we want to classify them by families, and get into every family circulars upon the subject of the disease they have suffered from. When a family has had a death from diphtheria that family will get a circular on diphtheria. After a decade of that kind of work you will see a decrease of diphtheria in this State. That has happened in Michigan. For almost two decades they have been doing this work. When a family has received a blow from the death of some member by a preventable disease they are in a receptive condition of mind, and will read the circulars, and that will bring forth fruit.

We have now $6,000 with which to collect vital statistics. It costs us nearly $3,000 just to do the printing, and the other $3,000 is left for the payment of the office force, correspondence and postage. In Michigan they have over $10,000 for statistical purposes. They have also $18,000 for enforcing the food law, and they have an unlimited amount for their office force.

They have the means to do good work and they do it. We will ask of the next Legislature the establishment of a laboratory of hygiene. That will cost $10,000, and it will cost $10,000 more to support it. If that laboratory of hygiene saves one-tenth of the industries I spoke of a moment ago, that alone will save the expense a hundred times over. If it will enable us to enforce the food law, that again will save the expense of the laboratory. Indeed, we will save the expense a dozen times over in the good work it will do. This is something the State must have, not the Health Department.

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Dr. Taylor, Crawfordsville: Would it not be a good idea to draw up a resolution providing for the establishment of a laboratory of hygiene?

Dr. Ross, Jay County: I have asked for an appropriation to publish the Rules of the State Board of Health, and the County Council failed to make the appropriation. I took them to the editors of the two leading papers in the county and explained the situation to them. I told them that the State Board of Health wanted the rules published, but that the County Council would not pay for them. They agreed to publish them, however, and take the risk of getting paid for it. They did publish them, and now we have suits against the county for payment for this work. We have a peculiar County Council. They will not make an appropriation for printing, for buying flags for the Health Officer, for burying dead animals, or anything of that kind.

Dr. Horn, Wells County: In Wells County, I am sorry to say, we have a few antivaccinationists, and to start the fight we ordered a general vaccination. That, no doubt, provoked some, and they started a fight against the Board of Health. When the Health Rules were sent there to be published there was no appropriation for the work. One paper stands by the Health Board, and the other antagonizes it. The friendly paper said they would publish the rules and trust to luck to get paid for it. The other paper published it after a while, and finally we got them both paid somehow.

A great many people are antagonistic to the Board of Health. They would destroy it if they could. The people think when a Health Officer enforces rules he is doing it to be "smart," as they say.

It seems to me that this laboratory of hygiene would be very valuable, but we have other things that should be done first; we must win over the papers and the judges and the members of the Legislature. This must be a campaign of education.

Dr. Fairfield, Anderson: I think Dr. Hurty has broached an important matter. I do not want to make too high an estimate of the advanced stand that the average citizen of Indiana takes in regard to health matters. They have gotten up to the hog and cattle

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stage of hygiene, but when it comes to the County Boards of Health protecting the people, they think the people can protect themselves. I notice that whenever anything is broached that is going to go into the pocketbook of the State that there are papers ready to cry down every good movement that is made to protect the people. I think it will be best to go at this matter in a quiet way, and to have every physician in the State work his political field. When we go into this canvass we are bound to have the opposition papers saying anything and everything against the movement. You may say, "Capture the editor," but that does not always capture the paper. His paper is in politics, and he is going to say something to capture the people's votes, whether it is right or wrong.

Dr. Bence: I think this will have to be a campaign of education. I am on pretty good terms with our County School Superintendent, and he gives me an hour or two before the teachers every year in which to talk to them. You can disseminate health laws pretty rapidly when you get the teachers informed and let them know that you are interested in protecting the health of the children and of the community. In addition to the health circulars, teach them how to take care of the children and to examine the children. Then when we have our farmers' institutes they give me another hour, and I teach the farmers. I talk for an hour on the hygiene of the farmer's home. I call to their minds things they have never thought of, how they develop diseases around their homes, and such things. You would be surprised to see the number of good old farmers and their wives who come to me after the talks and thank me for what I have told them. Some time ago we had a meeting in a church and Dr. Hurty came down there and gave us an illustrated lecture. Now in the past year we have had these three meetings, and have tried to educate the people through them. After you have done all that, you will have some contrary people to deal with, and you will have some doctors who will work against it. That kind of person you can not argue with; you must just draw the lines on him and say, "This is the law and you will have to obey it."

Dr. Hoadley: I would like to ask Dr. Bence whether or not the last publication that came from the Secretary of the State Board

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of Health to be published in the counties was accepted by Putnam County in good faith. I mean the publication of the food laws.

Dr. Bence: I never heard a word about it except words of commendation. It was published in two papers, so that people of both political faiths heard about it. The Commissioners paid the bills for publishing it without any objection.

Dr. Hurty: It is the Board under the law that sends the rules to be published, not the Secretary of the Board. I will tell you how that got into the law. The law as originally drawn provided that the rules of the State Board of Health should be promulgated by being published in two papers of Indianapolis, of two different political faiths, one issue, and that then it should be printed in pamphlet form. That would have cost us three or four hundred dollars. In our original draft we had provided for this method. The law was before the Legislature. A member of the Legislature who owns a newspaper in one of the northern counties sent up an amendment, and it was passed, that the promulgating of the rules should be accomplished by publishing in each county, two issues, in two different papers, and that the Commissioners should do it. That law cost this State not less than $9,000, and yet that same Legislator voted against the appropriation for the State Board of Health.

The following resolution was presented by Dr. Powell, who had been requested to prepare it:

Resolved, That the members of the State Board of Health and of the various county Boards throughout the State use their influence with the members of the coming Legislature to secure the establishment of a laboratory of hygiene and its proper equipment, for the purpose of aiding the health authorities in their work of preventing disease, and securing the enforcement of laws now on the statute books regarding adulteration of foods and pollution of streams.

It was moved and seconded that the resolution be adopted. The motion was carried by a unanimous vote.

Dr. Powell: We had a little experience in the matter of trying to influence legislation when the present law was passed. I think we did more good by personal talks and by securing letters from various physicians addressed to the Legislators, requesting them to

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use their influence in favor of the bill, than by any use of the newspapers. You will accomplish a great deal more in that way than you will by publishing it from the housetops. It is not necessary to furnish our enemies with ammunition to carry on the warfare; they will do enough without that. I think the less we say publicly about this matter and by publishing it in the papers the better it will be for us.

The following resolution, which was seconded and carried, was offered by Dr. Hunter, of Lawrence County:

Whereas, The present method of slaughtering animals, and the location in the midst of, or in close proximity to, densely populated districts, is a menace to the public health and the comfort of those who reside in the vicinity, and

Whereas, The present method of disposing of offal of slaughtered animals, and the feeding and fattening of hogs on said offal, is not only objectionable, but detrimental to the public health; therefore, be it

Resolved, That the State Legislature, or State Board of Health, or conjointly, are hereby petitioned to prescribe some method of slaughtering animals, and disposing of the offal by cremation, or otherwise, and to prohibit the feeding or fattening of hogs thereon.

In our county we have the slaughterhouses outside the corporation limits of towns and cities; but I have heard that hogs are fattened there at the slaughterhouses on the offal. I have tried to get the matter corrected, but so far my efforts have not done much good.

The following resolution was also offered by Dr. Hunter, of Lawrence County:

Whereas, We as Health Officers of Indiana are censured and subject to removal from office for the imperfect return of reports, and the failure to comply with rules of State Board of Health by the physicians of the State; therefore, for our protection and assistance, be it

Resolved, That the State Board of Registration be empowered to revoke the license of any physician or midwife for the refusal or negligence in the third or fourth offense to comply with the rules thereof.

It was seconded but not carried:

Dr. Powell: It seems to me that the last resolution is hardly in order, from the fact that the State Board of Registration could not revoke the license already granted to a physician. If I am wrong I hope to be corrected.

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Dr. Horne, Wells County: If the State Board of Registration has any power, I should think they could recall a license they have already granted.

Dr. Currier, Secretary of the State Board of Registration: It is very difficult for us to do much before the various juries of the State. You can hardly revoke a license, even where there is proof that a physician is an habitual drunkard. While we have had a great many convictions in the various suits we have brought, we have also had a great many failures to convict. Where the law is specific in regard to the moral habits of the person in question, we have failed to secure a conviction.

Dr. Powell: If the Board of Registration has issued a license to a physician, can the Board take it from him unless he does some wrong, as specified in the law?

Dr. Currier: It is hard to take it away then. This we have demonstrated by repeated trials. I would like to bring a matter before this Conference, with your permission, in reference to the registration of traveling doctors, or doctors who seem not to have any established residence for any length of time. Before our last meeting, as nearly as we could estimate, we had about forty applicants that are supposed to be traveling doctors. They come into the various counties and file affidavits that they have been residents of these counties for various lengths of time. The Board passed a resolution requiring them to make a showing that they have been residents of the county and State for six months. That, in some instances, proved a hardship.

Now, we think that if we had a committee of reference in each of the counties, who could show us that the man was a traveling fake, they could make such a statement. We are placed at a great disadvantage; we only know people as they come to us with their papers. Sometimes the quacks have the best papers. They have studied the law carefully, and try to comply with every part of it, even if they have to swear to things that are not true. With your assistance we could eliminate a great deal of this irregularity. Our Board has adhered to this one feature of the law requiring the applicant to be a bona fide resident of the State. I think the Health Officers of the State have been negligent in failing to give us information on these points. A traveling doctor running an Indian

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show, or something of that kind, will come here with papers that are correct, and we have to rely upon his sworn statements. If we had some way to verify these statements by some one in every locality, it would help us. We have been unable to establish a reference list through the State that is of utility. I would like to have each member of this Conference become a committee of one, and when we have an application from his locality, and we are suspicious of the applicant, we could refer to the Health Officer and get his opinion as to whether the applicant should have a license.

There is one other point on which I would like to ask your assistance. We are making up our annual report now. We are well aware that there are many physicians in the different counties who have died during the year. Others have left the State and settled elsewhere. It will be almost impossible to have a record that will be absolutely correct, but you can help us materially. We can make a mortuary list from the daily papers, but you can furnish us a list from your records of all the physicians who have died since 1897 to the 31st day of December, 1899. Where county clerks make reports according to law we get the record of removals from county to county, but we have two county clerks who have refused to make returns this year. These two counties are Greene and Henry. They have been written to four or five times, yet have failed to respond. If there is a representative from either of these counties here, I wish he would help us get the returns.

On motion the discussion on Dr. Proegler's paper on smallpox was again taken up.

Dr. Hoadley: I have been in the practice of medicine over forty years, and have never had charge of a case of smallpox, unless I have one at the present time. The question with me now is the question of diagnosis. I was called to Plainfield a few days ago. A preponderance of the symptoms favor smallpox, but there are some marked features of chickenpox in the case. The patient is a young lady, and the physician whose patient she was called me up by telephone to come to the place immediately. I saw the patient in an hour after he did. She said she felt indisposed the day before I saw her. She had begun to break out, and was feeling decidedly bad. I thought then the symptoms indicated chickenpox rather than smallpox. The patient was well broken out all over the face,

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and was also broken out on the wrists and arms, and on the soft palate and tongue. The eyes were red, and, according to my information, that would indicate smallpox. At the same time it did not appear in the scalp. I investigated further, and the condition of the eruption did not seem quite deep-seated enough for smallpox, yet it seemed a little too deep for chickenpox. The temperature was 101.

Dr. Cole, Greene County: We have had a great deal of what is called smallpox in our county. We have had typical cases of smallpox, others that were not, and some, in fact, that outside of an epidemic would not be called smallpox at all. There are certain characteristics about these that we have to go by to a certain extent. One of these is the shot-like feeling of the papules. I have had a number of these cases where you could feel it and in others you could not. The patient would be a little indisposed, have a little fever; sometimes they would break out pretty freely, and in other cases there was very little breaking out. We had a number of cases that started in like mild cases of smallpox, but the patients were well inside of a week. Others went through the papular stages, but they dried up inside of two days and the patient was well. The majority of the cases were not confined to their beds. Eight or ten cases were pretty severe. The source of the infection has something to do with it. The probability of being in a locality where they have had this disease is one of the things that help to determine what it is. In one little town they had chickenpox and then they had some cases of smallpox which resembled it, and this caused the disease to spread. The very ones who had had the chickenpox took the smallpox right after it. When the smallpox came they still thought it was chickenpox, and it was scattered into the mining towns, and they disseminated it from Clay City. The principal diagnostic point I relied on was the prodroma, the second was the shot-like feeling under the skin; also, if it went to this stage, the umbilical condition.

Dr. Brayton: This is a simple disease, positive and easily determined, particularly if you keep in mind a few simple facts, and yet we have met with countless errors over the State in regard to it. I want to commend one statement of Dr. Proegler's, and that is that in a large experience with smallpox he has never seen a case of

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chickenpox in an adult. For a year I asked every experienced physician I met as to the prevalency of chickenpox in adults, and I could not learn of a half dozen cases. Dr. Charles Ferguson, of Indianapolis, whom I would set off against any diagnostician in the United States, as far as he has had opportunity to observe, has been fortunate enough, within a few weeks in this city, where chickenpox has been quite prevalent, to see two or three cases in persons above sixteen years. I went with him to see a case in a boy who weighed 140 pounds, and was above eighteen years of age. This was a rare case. I understand from Dr. Ferguson and Dr. Ridpath that they found two or three other cases of chickenpox in persons between seventeen and twenty-two years of age. This is remarkable. I think that a statement I made recently—which some thought pretty bold—that any pustular disease that we come in contact with that comes in unvaccinated people, and taking adults as well as children, had best be regarded as smallpox. If we can get the brethren over the State into the belief that they should regard with suspicion any pustular disorder in unvaccinated people, particularly adults, as smallpox, it would greatly clear the air.

I can not say more now than to commend this paper. We would like more papers from our intelligent, educated, thinking German brethren. My experience with them is that they are hard-headed and sensible and get at the right of the matter pretty generally.

Dr. Ridpath: I have three cases I would like to refer to. These cases are at Irvington. They are a mother and her two daughters, the elder daughter eighteen years of age. They had been exposed to smallpox. The elder daughter had violent headache and fever, and sickness at the stomach. She was not treated by any physician. I afterward learned that she had had what she called "a few blisters" on her. All three of these people had been vaccinated and show good scars. The mother was taken next with the same symptoms, and the younger girl. Neither of the latter two had any eruption. I wish to ask Dr. Brayton one queston. We had every symptom of smallpox there, and all three of the patients had been vaccinated within a couple of years. Did they have smallpox, or did they have grippe?

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Dr. Brayton: At Clay City I saw a child on its mother's lap that had perhaps two thousand pustules, and another child in the same house had only ten or fifteen. A person may have smallpox by all the signs and history, and still not develop more than two or three pustules. Yet we find that if we attempt to vaccinate them afterward it fails. You say that these people have all been vaccinated. Then it is a very difficult question to determine.

Dr. Ridpath: I was criticised by the Irvington physician because I isolated those cases, and in a few days I am going to have the houses fumigated. The people themselves were satisfied, and were perfectly willing to be vaccinated. I did it as a matter of precaution. There are now two cases in Irvington, a Miss Hall, daughter of Dr. Hall of the University, and a Miss Abbott.

Dr. Pritchard, Vanderburgh County: In April we had a suspicious case. We have had smallpox in the county for six months. We have a number of colored people there, and we have a colored physician to look after cases among them, and a white physician detailed to look after the cases among the white people. On the 14th of April our colored physician was sent to look after a case. He diagnosed the case as chickenpox. The Board of Health was not satisfied, and asked to have the white physician examine the case. He did so, and diagnosed it as smallpox. The patient was sent to the detention hospital, and was dismissed about the end of the month. On last Sunday afternoon this same physician was sent to see her again, as it was reported that she was again ill, and this time he diagnosed the disease from which she was suffering as virulent smallpox, and she was again taken to the detention hospital. There was an eruption in the first case, and in the second case also.

Dr. Hurty: In cases where you can not state positively what an eruption is, you are to quarantine until you can. So if any officer wishes to take refuge behind the State Board of Health he can do so. The Board will protect him in his labors. All doubtful questions can always be decided in that way.

There is a feature about this thing of smallpox diagnosis that is exceedingly interesting. I got off the train at Logansport the other day, got into the buggy of the local Health Officer, drove to the house of a patient, made an examination, saw it was an unques-

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tioned case of smallpox, made the proper recommendations, got into the buggy, was driven back to the depot and left on the next train. I made the correct diagnosis. The Health Officer had already established a quarantine. Not a word was said to anyone about it, yet I was followed by two columns of abuse in a local paper next day. The same thing occurred at another place where we found eight cases in one family of well-marked smallpox. From this place we went to the Council chamber, the door was locked, we had a private and secret session, the Council was advised to take prompt action, and yet the papers in that place have been abusing me ever since for telling the truth. Why do people in certain localities act in this way? Dr. Hunter, Dr. Cole and other men have had downright abuse heaped upon them for trying to help their neighbors. In Clay County there were editors who could make a diagnosis of a case twenty miles away without seeing it, and lawyers who could do the same thing; yet neither class could see the absurdity of their acts. We had to get together on the ground and discuss the fine points of the cases, while they could decide the questions at a distance. We might call on them to settle all these questions for us.

Dr. Griffiths: Last June one of our physicians in Lagrange told me he had a case of varioloid four miles from town. This was on the 5th of June. The patient was a young married man who had come down from the school at Valparaiso. I found him covered from head to foot with pustules; I counted between thirty and forty on his forehead. I said that he unquestionably had varioloid. From the third day after he was taken sick he had eruptions and fever. Dr. Short treated the case to conclusion and to health. This man went to his mother's in Shipshewana on the 16th of June, and I was soon advised that they were developing smallpox there. In one family there three were sick. In another family, connected with this one, I found three people getting the disease. I informed the physicians there that they had smallpox among them, and forbade them to have horse races and baseball games, which they were contemplating having. Still, my deputy there had been treating these cases as chickenpox. There was at length so much contention over the matter that I asked to be allowed to call an expert. We had a careful quarantine established, and secured a nurse who had

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had the disease, and the cooperation of a vigilance committee of five, and between us we kept the disease confined to these two houses.

Dr. Ross: We had a case in our county. On the 8th of February a tramp stopped at a house and asked for a drink of water. A young man of nineteen years of age gave him a drink, but he asked for another, and then for a third. This attracted the attention of the young man, and he looked at the tramp more carefully and noticed that he was broken out. About ten days after the young man became ill and consulted a physician. From the fact that grippe was prevalent at that season he thought he was taking that disease. The next day the physician was sent for to see him, and found an eruption, and diagnosed the case as chickenpox. In the evening he was called again, and still thought it was chickenpox. Still the family was not satisfied, and called another physician, and he too said it was chickenpox. The next day the attending physician examined him again, and began to think that something was wrong about his first diagnosis, and asked to have someone else see him. The Health Officer of Dunkirk was notified, and he telegraphed me to come or to send an expert. I went over on the 26th. I had treated smallpox, and found this a confluent smallpox. The shot-like feeling was there, the papules, umbilication of the vesicles, and the palms of the hands and soles of the feet were covered with eruptions. That I have never seen in chickenpox. He had been vaccinated several years before. We vaccinated the other members of the family, quarantined them, and hired a nurse who had had smallpox. In this way we kept the disease confined to that one case. Where there is a case of that kind, is it the Health Officer's duty to become the diagnostician? Does the law require that of him?

Dr. Loomis: I think it is the duty of the Health Officer to lend all the assistance in his power. If he is called on by another physician in the county to assist in a diagnosis it is his duty, I think, to do it. I have always done it.

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SMALLPOX IN VERMILLION COUNTY.

E. C. LOOMIS, COUNTY HEALTH OFFICER.

Gentlemen of the Conference—The following is a statement of my experience with smallpox in Vermillion County since January 1, 1900.

February 20 a telephone from Quaker stated there was a case of eruptive disease, called by the attending physician chickenpox or "Cuban itch." Citizens were not satisfied, however, and asked my presence. An immediate call was made.

The patient was a male about forty years of age, who had a scattered eruption on face, palmar surface, and other parts of body, five days old. These eruptions were pustular and filled with purulent matter with more or less redness at base. Some of the smaller eruptions had partly dried, having a central depression at apex. Previous to eruption there had been considerable fever, with leg and backache. My judgment said smallpox, but we confess the opinion was influenced by the diagnosis of his physician. It seems the physician, while he called the disease chickenpox, immediately vaccinated the whole family of seven, except two, one of whom was an old lady between seventy and eighty, and the other a young woman of twenty-four who "chanced it." This vaccination showed the doctor was not sure of his diagnosis, and stiffened my backbone to quarantine. The doctor previous to this had been to Clay City, during that epidemic, and was therefore "qualified" to render an opinion, and has since stoutly maintained his original decision, which the family still repeat with various degrees of conviction.

The three cases below Dana during February and March, 1899, helped me out in the diagnosis. The patient had been visiting friends in Kansas City who had the disease, and about two weeks after exposure was taken himself, returning home in the meantime. Five of the family came down with the eruption, which includes the first patient, and all had the same symptoms as the first. On only one member of the family did the vaccination "take," a boy about ten years, who escaped the disease. The young lady who "chanced it" was sick last and worse. Her face looked like a speckled trout. In fact the appearance of her face was a

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picture of the face of the young man below Dana, who had the smallpox in 1899. I have since learned that her face has several well-marked pits.

April 24 Dr. Darroch, of Cayuga (Health Officer), summoned me by telephone to a farmhouse about one and one-half miles north of that town. Three members of a family had had a fever and eruption, but were up and about the house—two children and one adult. At the time of being called three more of the family were in bed with fever—two adults and a girl of seven. One was a lady of forty or more; all had high temperature (104) with pain in loins and limbs. They had been sick two days. Symptoms in these cases were the same as the first three. The disease was brought to the family by the hired man, who had been sick three weeks before and was then plowing in a distant field. He was sent for. A cursory examination showed that he had smallpox, being covered with dry scabs, and some not dried filled with purulent fluid. Small pits were numerous, and where scabs had fallen off a cicatrix was left resembling a vaccination scar—honeycombed. This man had been seriously ill a week; was seen twice by a doctor, who failed to recognize disease. After being able to travel, a church meeting was favored by his presence, and he had slept at the homes of several of the neighbors during his illness. At least fifty people in that neighborhood have been exposed by him. No evil results have so far been reported, at the time of writing (May 7, 1900).

None of these persons (the seven sick ones) had ever been vaccinated. The father of the family had been, and escaped. The hired man got his dose from a man who lived in Fountain County. Dr. Darroch went over the next morning to see this fellow, and found in the same family a similar case which led him to telephone Dr. Rowland, County Health Officer of Fountain County, who came down at once from Covington, all three of us meeting at the farmhouse. Dr. Rowland, without any hesitation, called all seven cases smallpox, as well as his own. Both places were quarantined. We admit it would have been difficult to diagnose six of the seven cases by mere inspection. The hired man really was the key to the situation. General vaccination was advised. Many have followed the advice.

Since the advent of this mild form of smallpox elaborate descrip-

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tions of smallpox and chickenpox, pemphigus, etc., have appeared in medical journals; but if one follows the published variations of the two poxes, which are descriptive of typical forms by different observers, a muddle will result. Like a cuttlefish, he squirts his ink and vanishes; none can follow. No description of a mild case has been given, to be recognized after a careful examination. Hair-splitting differences should be left for experts, dermatologists and kid-gloved professors to quarrel over; for after all there may be such a thing as being too scientific. Theories are often spun so fine they never can be more than theories.

Vermillion County has had within its borders, in less than fifteen months, fifteen cases of smallpox. The writer has seen every one of them. Three in the first instance, five in the second, and so far seven in the third, in widely separated localities. On account of this experience the writer ventures to give the following differential diagnosis between mild smallpox and chickenpox, as the result of personal observation only. The writer does not pretend to know it all. There is nothing new presented; simply the salient points, with confusing variations eliminated.

MILD SMALLPOX.	CHICKENPOX.
1. The first requisite is to have good horse sense.	1. Same.
2. Incubation period, nine to fifteen days.	2. Same.
3. (*a*) Sometimes ushered in by a chill, followed by fever.	3. (*a*) Same.
(*b*) More or less severe pain in back, loins and limbs.	(*b*) Not so.
4. Eruption appears about third or fourth day.	4. Same.
5. Pustules have central depression and contents purulent.	5. Neither purulent nor central depression.
6. Adults and children have disease alike.	6. A disease of childhood; rarely in adults.
7. Immunity of persons vaccinated.	7. Not so.

The writer suspects that an expert in science and medical lore may be overtrained, and is thereby unable to render a correct decision. Like a pugilist who goes beyond his limit preparing for battle, is unable to win. If the writer has made the subject more clear, even though the mist is only partly lifted, he has the gratification of trying to add his mite to the great mountain of knowledge which is the sum of all human endeavor.

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BEST METHODS OF ORGANIZATION.

No good organization for the protection of the public health can be effected without the proper laws. Law has been called the "expression of a want," and, before this "want" can be felt, the public mind must be educated to a sense of its needs.

This can be accomplished only by agitation, by sanitarians, newspapers, the clergy, and teaching hygiene in the public schools. So soon as people can be taught to know what numerous foes to health beset their pathways, so soon will they demand of their lawmakers a remedy. If the fact were well known to all that quite a number of diseases are preventable, and that sickness, pain and death can, in many cases, be averted by proper sanitary regulations, such a demand for the enforcement of all known rules would come up from the people that it would be irresistible, and in a short time we would have upon our statute books all the laws that would be necessary to bring about this much-desired result.

In this "land of the free and home of the brave," however, we find stubborn resistance to any reform, no matter how much needed, and with the "law's delays" and the fact that every man is entitled to his day in court, progress is necessarily slow.

So much, however, has been accomplished along these lines in the last decade that there is much reason for encouragement and to "thank God and take courage."

In nearly eighty per cent. of the States of the Union there have been created by legislation central organizations for the prevention and suppression of communicable diseases known as State Boards of Health. Some of them have almost absolute power to accomplish the purposes for which they were created, while others only have the power of giving advice to local health organizations of their respective States.

A State Board of Health should, in our opinion, be composed of men of intelligence and education, that have studied hygiene and sanitary affairs. The members of the Board should be appointed by the Governor of the State and be responsible to him for their official acts and hold office during good behavior.

They should receive proper compensation for their services, and the secretary, who should be the Health Officer of the State, should

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receive a salary sufficient to enable him to devote his entire time to the duties of the office, and also hold his position during good behavior. They should at least once each year make a report to the Governor of their investigations and proceedings, together with such legislative recommendations as they may deem necessary to make their work more effective.

The Board should be liberally endowed with funds, in order that it may be able to establish experimental stations, or, in other words, bacteriological and chemical laboratories connected with some State institution, for the purposes of establishing the true nature of diseases and determining the pollution of waters and the adulterations of food, and qualified men should be placed at the head of each department, who should receive adequate compensation for their services. Each county of the State should have a Health Officer, who should receive his appointment from the central organization or State Board, who could be removed by the appointing power for dereliction of duty. In each township there should be a Health Officer appointed by the County Health Officer, who could be removed by the power that appointed him whenever he failed to carry out the instructions of his superior officers. In each incorporated town and city a Board of Health or a Health Commissioner should be appointed by the Town Trustees or City Council, and all should be under the jurisdiction of the State Board of Health, and a severe penalty ought to be imposed upon any Health Officer or Commissioner who failed to carry out the orders of the State Board. Adequate laws should be passed by the Legislature empowering health authorities to abate nuisances, quarantine contagious diseases and all persons liable to convey such diseases to others, disinfect persons, clothing, merchandise, premises and other articles liable to convey disease.

The annual changing of Health Officers is a circumstance to be lamented, because it requires some time for men to familiarize themselves with their official duties. It too frequently happens that good and efficient men, who thoroughly understand what is required of them as custodians of the public health, and are not afraid to enforce the laws, are removed because their political views differ from those intrusted with the appointing power.

If civil service should prevail anywhere it should be in the health service of a State, and especially so because it is so difficult

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to procure suitable persons for the positions. In order to fill acceptably the office with benefit to the public the officer must be energetic, faithful and fearless in the performance of his work, and possess the courage to compel friends as well as enemies to obey the law. The position is one that ought not to be occupied by a drone, a timid man, or one with merely mercenary motives.

We have many Health Officers in our State (Indiana) who meet all the requirements of the office, while there is considerable of a minority who pay very little attention to the performance of their duties, and apparently take no interest in sanitary work. It is only when a great emergency arises and the citizens of their respective localities demand that something be done to relieve them of an intolerable nuisance, or prevent, if possible, the spread of an epidemic, that they arouse themselves from their lethargic condition and make a pretense of doing their duty. Such officers are too largely the cause of opposition to Boards of Health, and the niggardly support they receive in some localities.

A few give as an excuse for the neglect of their obligations the small sum paid for the work. All are aware of the amount they are to receive, but are ignorant of the manifold duties of the office. There are many men in our State who have made great sacrifices of time and labor in serving as Secretaries of Boards of Health, without any local encouragement or hope of reward, except that which comes from a knowledge of duty well done, and confidence that "some sweet day" their labors in behalf of humanity would receive a just meed of praise.

The office of Health Officer in some localities is let to the lowest bidder without any regard to the qualifications of the applicant or successful bidder. This is a pernicious practice, and one that will be condemned by every reputable man in the medical profession.

A sanitary journal correctly states the case when it says:

"There are some commodities that are suitable for the auction block, but brain is not one of them. It is an old theme, this competition bugbear, and it has been written up and written down, and written all around. Brain and its intelligent service can not be measured by the foot, the pound or cord, and inasmuch as it has no unit of measure as to its value except experience, and that a very elastic one, it follows that it can not be compared or bought on the same market as iron pipe, cement or paving blocks."

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But I believe the day is beginning to dawn. All over this country there is an awakening in regard to better sanitary arrangements that bodes good. Some of the younger States have adopted advanced ideas in sanitary legislation. Minnesota has a very comprehensive law entitled "An act relating to infectious and epidemic diseases, and the preservation of the public health." This law empowers the State Board of Health to make regulations for (1) the speedy interment of the dead; (2) house to house visitation; (3) the provision of medical accommodation for patients, physicians and nurses; (4) the promotion of cleansing, ventilation and disinfection; and (5) to guard against the spread of disease by quarantine. The twelfth section is of such vital importance that I will quote it entire:

"Section 12. Any local Board may direct the destruction of any bed or bedding, clothing, carpets or other articles which may have been exposed to infection or contact with infected persons or articles, and may allow compensation for the same, or may provide a proper place, with all necessary apparatus and attendance, for the disinfection of such articles, and may cause any articles brought for disinfection to be disinfected thereby; and the said Board may provide and maintain, when necessary, a carriage or carriages suitable for the conveyance of said articles, or of persons suffering under any infectious disorder, and may pay the expense of conveying therein any person so suffering to a hospital or other place of detention."

General Butler made restitution to the people of New Orleans ten times over for all he cost them, if the worst they said of him be true, in what he taught them in public sanitation. The people of Memphis arose from their fever-stricken city in 1878 and called him the "Sanitary Engineer." They listened to his advice, and now have over forty miles of sewerage scientifically constituted, and so ventilated and flushed many times a day, from over two hundred automatic flush tanks, that sewer gas is practically impossible. As a result, the city has nearly doubled her population and trade, and the yellow fever has become a thing of the past. It pays to spend money for public health. Indeed is "public health public wealth." But the sordid money consideration is the lowest in man's breast. Is it possible that we will do nothing good, noble or heroic unless it will pay? If this be true, perhaps the sooner we die out the better.

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SMALLPOX IN DELAWARE COUNTY, 1899-1900.

HUGH A. COWING, M. D.

Smallpox made its first appearance (since 1894) in Delaware County in the latter part of December, 1899, near Daleville, in the western part of our county. At the request of Trustee J. M. Hancock and Health Officer Dr. O. W. Brandon, Daleville, I visited a case of suspected smallpox one mile north of Daleville on December 25, 1899. The patient was Charles Dent, age 24, married. He was in the primary febrile stage of smallpox with the diagnostic shot-like eruption appearing upon his face, hands and chest. The following day Dr. Charles Trueblood, his physician, made a formal report of smallpox. Strict quarantine was secured under the direction of Dr. O. W. Brandon, who attended the family until they were released. Mrs. Dent and two children and John Wilson, in the same family, all contracted the disease in a mild form and made a good recovery. The infection spread no further. Wilson contracted the disease while in Anderson with relatives.

The second outbreak of smallpox occurred in February, 1900, at Albany, in the northeast part of our county. The disease first appeared in the family of Daniel Doughty, whose 13-year-old son had recently been in Newark, O., where he doubtless contracted the disease. The case was quite mild and was regarded by the family and their physician as some skin affection, the boy appearing upon the streets and at play while in the desquamative stage. An infant in the same family and a nine-year-old neighbor girl who had frequently visited the Doughty home both contracted the same disease. Dr. A. P. Murray, the Town Health Officer at Albany, saw the cases and, believing them to be smallpox, called me to see them. I visited the two children February 5 and found them in the pustular stage of smallpox. Quarantine was at once established, but many exposures had occurred. A Mrs. Dancer had done washing at the Doughty home when the son had smallpox. Shortly after my visit to Albany she became sick, and Dr. J. V. Baird pronounced her disease smallpox. She lived with eight children, ranging from two to sixteen years in a cottage of three rooms. The children were all promptly and successfully vaccinated, and all escaped the disease. Perry Davis was in the Doughty home while young Doughty was in the desquamative stage. Fourteen days

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afterward Davis became ill, and Dr. H. C. Burcham made a diagnosis of smallpox. Vaccination and isolation promptly suppressed the disease in this family. Mrs. Lena Hemelgarn washed for the Doughty family while young Doughty was in the pustular stage. In due time she developed the disease, but concealed the fact from the local authorities. Two young men boarding in her home had smallpox in a light form and unsuspected by the authorities. In seeking another boarding house they carried the disease to another family. The facts of their previous sickness then became known and they were arrested at the instigation of Health Officer Murray, and both were fined, disinfected and permitted to leave the town. Mrs. Hemelgarn had already moved to Ohio, where it is understood she carried the disease, and several cases of smallpox developed.

While young Doughty was ill, Frank Hines took dinner at the Doughty home. In fourteen days he became sick at his home, two miles southwest of Muncie. He was seen by Drs. George R. Green and S. M. Ried, of Muncie, and they reported "smallpox." On February 20 I visited Mr. Hines with Dr. Harry R. Spickermon, of Muncie. Dr. Spickermon took charge of the local quarantine and medical attendance. Mrs. Hines and seven children took the disease. The eighth child, the only one successfully vaccinated at the beginning of the outbreak, escaped the disease. Through the scrupulous and intelligent care and untiring energy of Dr. Spickermon the disease did not spread from the Hines home. The family is now out of quarantine.

Altogether there were twenty-six cases of smallpox, with no deaths. However, some of the cases could not be termed mild. As in our larger experience in 1893 the good effects of vaccination were amply demonstrated. Of course there were the no-smallpox advocates to encounter, but the County Council and County Commissioners gave unqualified support to the Health Officers. The physician who attended the Doughty family reported the cases as "Specific Confluent Chickenpox." The grand jury has just investigated his case.

At Daleville all exposed persons were kept under surveillance until all danger had passed.

The epidemic at Albany cost the town about $1,500.

At present our county is free from smallpox.

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REPORT OF COMMITTEE ON STATE MEDICINE AND HYGIENE.

To the Indiana State Medical Society:

STATE MEDICINE.

The laws of Indiana, governing the practice of medicine, dentistry, pharmacy and health, were reviewed in our report of last year. It now is opportune to comment upon the operation of the laws, to record suits in court brought under them, and give results of such suits.

THE MEDICAL LAW.

A score or more suits have been brought in various counties with varying results. For instance, in Tippecanoe County an osteopath suit resulted in success for the prosecution, while in Allen County a like suit failed.

State vs. Webster, 150 Ind. 607: In this case it is also decided that the Medical Board possesses the right to review the authority upon which a license was granted under the old law, and to withhold a certificate from persons to whom, in the judgment of the Board, licenses have been improperly granted under the previous law.

In the case of Eliza E. Coffin, 152 Ind. 439, the Medical Board refused Eliza E. Coffin a certificate entitling her to practice medicine on the ground that she had been and was guilty of gross immorality. In this case the Supreme Court, sustaining the Board, held that in applications by improper persons for authority to practice medicine it was the duty of the prosecutor to appear and resist, as a representative of the State, it being to the interests of the State as a whole that the people be protected from the admission of improper characters to the medical profession.

THE DENTAL LAW.

In suits under the dental law the same remarks hold as under the medical law. It seems proper to here record two special suits as follows:

In Ferner vs. State, 151 Ind. 247, the constitutionality of the dental law was attacked, and it was held constitutional by the Supreme Court. In case of State vs. Green Clay, in the Criminal

Read first at the (17th) annual meeting of the Indiana State Medical Society.

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Court of Marion County, the law was again attacked, and its constitutionality was sustained by Judge Alford. This case was not appealed to the Supreme Court.

The Pharmacy Law.

The constitutionalty of the pharmacy law has not been questioned in the courts. John Milton Rhodes, a regular licensed physician, purchased a drugstore June 19, 1899, and made an attempt on July 1 to procure a license as a registered pharmacist, by virtue of having been the owner of a drugstore prior to that date, the Board having refused him a license. He undertook to mandate the Pharmacy Board to grant him one. The case was tried by Judge McMaster in the Superior Court of Marion County, and he held that only persons owning drugstores on and prior to April 27, 1899, were entitled to registration without examination. This decision is very recent, and an appeal has been taken from it to the Supreme Court, but it has not yet been passed upon.

The Health Law.

Suits have been brought under this law in fourteen counties. In all but four instances the law has been upheld, and in these four failures lack of evidence was the cause of dismissal. Most of these suits were against physicians for failure to report births and contagious diseases. In every instance the prosecution was not made until the offender had repeated his offense several times and ended by defying the law. Several suits were against undertakers for burying without permits. The great suit, however, which has advanced Indiana greatly in civilization is known as the Blue vs. Beech case, presented by Dr. Cowing, and which follows:

VACCINATION CASE.

[Blue v. Beech, decided February 1. 56 N. E. 89.]

In this case the authority of the State Board of Health to require vaccination before school children should be admitted to the public schools, in the absence of any statute compelling vaccination, was disputed. In deciding the case, the Supreme Court of Indiana held that, where a smallpox epidemic was threatened and the local Board of Health made an order requiring that no unvaccinated child be allowed to attend the public schools during the continuance of such danger, such unvaccinated child may be properly excluded, though well and healthy, and it had, in fact, never been exposed to the disease. The court also held that the State Board of Health possessed the power to adopt a rule requiring

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local Boards to compel vaccination of all persons in all cases where an exposure to smallpox is threatened or where there is danger of a smallpox epidemic, and further—

That the statute authorizing the State Board of Health to adopt rules and by-laws in harmony with other statutes in relation to the public health to prevent the spread of contagious diseases, and requiring local Boards of Health to take prompt action in all cases to prevent the spread of such diseases, provides also that a local Board of Health has power to require that no unvaccinated child be allowed to attend the public schools during the continuance of a threatened smallpox epidemic. The Court says:

"In order to secure and promote the public health, the State creates Boards of Health as an instrumentality or agency for that purpose, and invests them with the power to adopt ordinances, by-laws and regulations necessary to secure the objects of their organization. While it is true that the character or nature of such Boards is administrative only, still the powers conferred upon them by the Legislature, in view of the great public interest confided to them, have always received from courts a liberal construction, and the right of the Legislature to confer upon them the power to make reasonable rules, by-laws and regulations is generally recognized by the authorities. When these Boards duly adopt rules, by-laws and regulations, by virtue of legislative authority, such rules and by-laws, within their respective jurisdictions, have the force and effect of a law of the Legislature; and, like an ordinance or by-law of a municipal corporation, they may be said to be in force by authority of the State.

"As a general proposition, whatever laws or regulations are necessary to protect the public health and secure public comfort is a legislative question, and appropriate measures intended and calculated to accomplish these ends are not subject to judicial review. It can not be successfully asserted that the power of the Boards of Health to adopt rules and by-laws, subject to the provisions of the law by which they are created and in harmony with other statutes, in relation to the public health, in order that an outbreak and spread of contagious and infectious diseases may be prevented, is an improper application of legislative authority and a violation of Article IV, Section 1, of the Constitution. That the power granted to administrative boards of the nature of Boards of Health to adopt rules, by-laws and regulations, reasonably adapted to carry out the purpose or object for which they are created, is not an improper application of authority within the meaning of the Constitution, is no longer an open question, and is well settled by a long line of authorities. It would seem that the power of the Boards of Health of this State, under the laws relating thereto, to make and adopt all reasonable by-laws, rules and regulations to carry out and effectuate the great interests of the public health confided to them by the Legislature is so well affirmed by the authorities that we may dismiss this feature of contention without further consideration."

Mortality Statistics.

The mortality statistics for Indiana have now been collected for six months. The figures are quite as accurate as we expect such statistics to be. Each month they have been published in the Bul-

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letin of the State Board of Health. This Bulletin has a circulation of 2,000 monthly, and is in demand by most of the great colleges of the United States, as Harvard, Yale, Columbia, Johns Hopkins, etc., and requests have also been received from several foreign countries that they be put upon the mailing list. The mortality statistics law is certainly an honor to Indiana. An eminent physician and professor in Connecticut remarked: "It is probable the people of Indiana do not fully understand and appreciate this law, and it is further probable the Legislature did not comprehend its wide-reaching benefits when it was passed."

In the plans of the State Board of Health for presenting the mortality statistics, the Monthly Bulletin gives tables by ages, by important diseases, by counties, by cities and towns, by urban and rural, and finally by a map which divides the State into three sanitary sections—Northern, Central and Southern.

The Northern Section—31 counties, population 892,448—is bounded on the south by Warren, Tippecanoe, Clinton, Tipton, Madison, Delaware and Randolph counties.

The Central Section—33 counties, population 1,022,924, has in its northern tier the counties just named, and is bounded on the south by Sullivan, Greene, Lawrence, Jackson, Jennings, Ripley and Dearborn counties.

The Southern Section—28 counties, population 729,834, has in its northern tier the counties last named, and is bounded upon the south by the Ohio River.

A monthly table of climatic data is also published, the same being furnished by the Indiana Section of U. S. Weather Bureau. It is believed that a few years' statistics arranged and tabulated as described will be found of very great value.

Tuberculosis.—In Indiana, as in other States, tuberculosis is the great destroyer of human life. It is the great white plague which leads all other diseases. Based upon the mortality data for the last six months, there will be this year in Indiana 1,540 tuberculosis deaths, a rate of 12.2 per 100,000, making one death in seven from this preventable cause. Active steps are being taken in European countries and several eastern States toward the prevention of this awful disease, and your committee feels sure the time is ripe in Indiana for the work to begin. This belief is sustained by the fact

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that this society only last year sent out to the people resolutions on tuberculosis prevention.

Typhoid Fever.—So far as can be learned there is no lessening of this disease in Indiana. On the basis of the mortality statistics for the six months just past, there will be in Indiana in this year fully 2,000 deaths and not less than 20,000 cases from this nasty filth disease.

Diphtheria.—There seems to be a considerable decrease in the mortality from this disease in Indiana. At the rate based on the last six months' returns, there will be in this year 974 deaths from diphtheria, a rate of 36.8 per 100,000 of population. The deaths for the preceding year from diphtheria were not less than 1,500. It seems fair to attribute this decrease to the better application of sanitary measures and the administration of antitoxin.

Scarlet Fever.—The total deaths for the year, based as above, from scarlet fever, will be 172, a rate of 6.5 per 100,000. This is a decided decrease, due largely, no doubt, to better enforcement of quarantine.

Measles.—The cases yearly number into the thousands. The deaths, based as above, will be 60, a rate of 2.2 per 100,000. It would be valuable and interesting to know how many children are annually permanently maimed by this disease.

Puerperal Fever.—The deaths from this cause, based as above, will be 136, a rate of 5.1 per 100,000 of population. One hundred and thirty-six mothers is a large number to lose annually, and the figure admonishes doctors to wash their hands and wear clean clothing.

Pneumonia.—This disease, the result largely of debility and the breathing of foul air, will destroy this year (based as above) 4,480 persons, a rate of 169.3 per 100,000 of population.

Cancer.—At the present rate, 920 people will die of cancer this year. This is a rate of 34.7 per 100,000 people.

Typhoid Fever and Its Cost in Indiana Annually.

To show the waste of life and health entailed by typhoid fever, let us imagine that all the cases of typhoid fever for a year should happen at one time and in one place, and should be cared for in dwellings. The total number of typhoid deaths per annum in Indiana is, in round figures, 2,000. As there are at least ten cases for

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each death, the total number of cases was, therefore, 20,000. Twenty thousand persons having typhoid would require for housing a city the size of Anderson or Muncie.

Every five sick persons would give steady employment to two nurses and a laundress. Here then are 12,000 more inhabitants for an imaginary city of typhoid. For every fifty patients we will allow one physician, and this adds 400 more inhabitants. The average duration of a case of typhoid fever is forty-two days, so that for six weeks a population of 32,400 would have to be supported, without in that time producing one penny's worth of anything. If it cost to supply these people with the necessaries of life a little more than it costs to support paupers in our poorhouses, this city of typhoid would cost in six weeks about $400,000. If the doctors and nurses would consent to accept four dollars each week for six weeks for services, we would have to add $303,600 to the expense account. So far we have not charged up anything for the cost of death. Funerals would occur in that city at the rate of something over 333 a week. At the price of a pauper funeral, the 2,000 deaths would cost not less than $20,000. If each citizen who died can be said to be worth the price of a good cow—$40.00—the cost of deaths will be increased by $80,000, bringing the total cost of running the city of typhoid for six weeks up to $803,000. If these citizens are worth less than forty dollars each, it would be cheaper to butcher them all at the beginning of their illness. They could be butchered and buried for probably twenty dollars each, a total cost of $40,000, or the remains could be sold to the tankage men at three or four dollars a ton, which would save the $20,000 funeral expenses and yield quite a profit.

If these latter suggestions in the direction of economy are not sufficiently revolting, there is but one more revolting manner of dealing wth the problem of the preventable typhoid fever, and that is to permit the disease to go on, year after year, collecting its ghastly toll from the youth and vigor of the State, and holding its still more hideous menace over the thousands which it does not destroy.

The figures here given are based upon absurdly low estimates. If the average citizen was worth what it costs a negligent corporation to kill one, the cost of death alone would be $2,000,000. Certainly it is fair to say that Indiana pays annually for having this

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miserable filth disease as much as it costs to maintain our public schools. It is possible to cut down sickness from typhoid fever to one-tenth its present measure. This work does not proceed upon theory nor without example. The story of how typhoid fever has, by simple means, been cut down to one-tenth or even one-twentieth of its magnitude, has grown tiresome from often telling, yet the people of Indiana do not listen, and suffer and die and desolate their homes, and suffer enormous losses of money annually.

Are we a practical people to thus refuse to apply sanitary science to our everyday life?

SMALLPOX.

This disease has been constantly present in the State since January, 1899. In the report of this committee last year to this society, a list of the counties invaded by smallpox was given. Every one of the counties in that list, Union excepted, have had the disease since that time. In addition, other counties have suffered, notably Washington, Clay and Posey. Owing to the mildness of the malady scores of families which had it did not call physicians, and not until after it was all over was the fact discovered. From this it seems fair to assume there have been many cases of which there is no record. The lowest estimate of the total number of cases for the year is 2,200. The number of reported deaths for smallpox is 19. We know, however, this is not the true figure, for deaths known by investigation to have been caused by variola were reported from other causes. For instance, a woman of twenty-two, who died of hemorrhagic smallpox in Clay City was reported as dead from "disease of puberty;" and further, there are several instances of children's deaths from smallpox which were reported "chickenpox, complicated with cerebro-spinal meningitis." It is undoubtedly true that the type of the disease is, on the whole, more severe than in the preceding twelve months. For the first period of this epidemic, semiconfluent cases were scarcely heard of, but in the last period, semiconfluent, confluent and hemorrhagic have appeared. A brief history of the Clay County epidemic will serve fairly well for Washington County, but not for Posey or Owen counties. At Clay City the first case appeared in November, 1899. It was diagnosed chickenpox, and no precautions were taken, and as a consequence it soon overspread the town and sur-

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rounding region. January 15, 1900, a lay telegram from Clay City to the Indianapolis Journal told of an epidemic of chickenpox, affecting adults. The report said there had probably been three hundred cases, and some of them very severe. It also told of people being covered with horrid boils and suffering from abscesses. It was all too plain, even at a distance, that the disease was smallpox. A visit by the State Health Officer and the examination of a number of cases proved the surmise of smallpox to be true. When the public announcement was made, doctors, laymen and newspapers alike joined in a loud chorus of denial. In the papers abusive editorials appeared. Ridicule was poured forth in abundance, and people by the score carded the prints, also protesting, abusing and ridiculing the diagnosis of the Health Officer. So great was the hubbub that the Indianapolis News sent Dr. A. W. Brayton, of Indianapolis, to make diagnosis. Dr. Brayton pronounced the epidemic disease to be smallpox. Still newspaper editors, business men, lawyers, farmers and others who did not know smallpox from hemorrhoids drew upon their conceit and ignorance and malice for a fresh stock of calumny and ridicule. Still the smallpox went on; it would not be stayed by the method adopted. Finally it dawned upon the people there was a tiger in their midst, and that he must be destroyed. Clay City was put under quarantine, special officers were appointed in infected townships, house to house inspections were made, domiciliary quarantines established, and general free vaccination practiced. So firmly was the disease established that it has taken until the present time to stop it, and this day there are found practitioners in the Clay City region, and other regions also, who, in the presence of typical variola, deny its existence. This Department makes possible easy classification of these persons.

In Washington County the Auditor violently opposed preventive measures. He declared he had "Gunn's Family Medicine," and he knew as much as anybody about the disease which was epidemic, and it was not smallpox. The Commissioners of this county employed two well-known physicians of Salem to investigate the epidemic eruptive disease, and they reported it undoubtedly to be smallpox. Still the "Gunn book" Auditor opposed, would not audit smallpox quarantine accounts, and with his very considerable following obstructed preventive work. In this county, as in Clay,

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the people from beneath their blanket of scabs and pus finally saw the light. In Madison County smallpox appeared during the last holidays at Anderson, in the Dent family. There were eight cases of smallpox in this family, an older son bringing the disease from Arkansas. When the true diagnosis was announced, and rational and legal measures taken to put out the disease, a loud protest, with ridicule, proceeded from certain persons, who, by their actions, claimed to be able to diagnose variola at a distance. As trained diagnosticians can not perform this feat, the conclusion is that the first class are either endowed with occult powers or are oppressed with conceit, ignorance and maliciousness. The effect always produced by noise of the character described is to seriously hurt business. And this actually occurred in Anderson, for the continued vulgar abuse of the Health Officers, whose work was solely to prevent disease and death, brought forth many inquiries from surrounding towns and cities as to the seriousness of the conditions, and asking as to the advisability of establishing quarantine against Anderson. This was firmly advised against, and so the city did not suffer commercially so severely as it otherwise would.

If a fire exists in a city, and if a conflagration is threatened, denial of the fact and abuse of the firemen will not put it out, and business can not go on successfully until it is put out. Business men know it is not the doctor who makes the true diagnosis of smallpox, but the smallpox itself which will interfere with business, and they realize that those who oppose the extinguishing of fires or smallpox in any way whatsoever are enemies to their city. It may be unnecessary, but still we will remark that in Anderson and everywhere else in Indiana the good citizens always heartily support the physician in his efforts to prevent and stop disease.

Vaccination.

We are wasting great sums quarantining smallpox. Indianapolis has spent over $14,000 in this work since January, 1899. Evansville has spent $5,000, and various counties proportional sums. I say it's a waste of money to maintain smallpox quarantines, because it is wholly unnecessary to have smallpox, and no matter how much we quarantine, smallpox will go steadily on until all susceptible persons are attacked. Let us all vaccinate, then, and be rid of the whole nasty business. Here in Anderson, as elsewhere,

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the disease will not stay stamped out until all the productive soil has been rendered barren, and this despite quarantine. Still, quarantine must be maintained, unless the people will become practical and apply to everyday life the discoveries of science—that is, be vaccinated. Compulsory vaccination should be the cry of rational, scientific medicine. The antivaccinationists are decayed stumps in the road of progress. Judging from their printed utterances, they know neither science, truth nor courtesy. They declare that lymph is pus, and that vaccina is related to syphilis and to tuberculosis, and, curious to relate, they publish vaccinia as the cause of pemphigus. The hundreds of thousands of successful vaccinations and the overwhelming evidence of its protection against smallpox are to them as nothing. They collect their facts from perverted imaginations, and their reason is pure absurdity. It is useless to try to reason with them. Their minds are not open and have no receptivity for facts. Let us, therefore, advocate compulsory vaccination, and so put from us the loathsome smallpox.

Bubonic Plague.

The last year has seen the bubonic plague steadily extending westward in Europe, establishing itself in South America, and continuing its threatening of North America, both on the Atlantic and Pacific sides, and has a foothold at San Francisco, six deaths and many cases having occurred.

Bubonic plague is the most fatal of all known epidemic diseases. From 25 to 70 per cent. of the population are usually attacked when an epidemic occurs, and of these, at the commencement about 90, and later on a smaller percentage die. The climate the most favorable to its spread is a moist, hot one. A temperature of over 80 degrees generally checks an epidemic, as does also extreme cold, but there have been some notable exceptions to this rule, such as Moscow in 1770 and on the Volga in 1878-79, when severe epidemics raged in the severest winter weather.

Plague is transmitted by:

1. Contact with the sick.
2. Contact with animals that have the plague.

The co-operating causes are:

1. The overcrowding of dwellings.

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2. Uncleanliness, which is the most potent one, more especially, the accumulation of diseased organic matter around houses and the saturation of soil by filth.

For the prevention of plague, health authorities should direct their attention to the following points:

1. Prevention of the introduction of persons or animals having the disease, and the destruction of all rats and mice.

2. The thorough cleaning of streets and drains, and the keeping of the same in a sanitary condition.

3. The erection of suitable hospitals for isolation and scientific treatment.

4. The disinfection of infected houses, with compensation for destruction of infected property.

5. The cremation or antiseptic burial of the dead.

6. The special preparation of all physicians in the diagnosis of plague.

7. The judicious and scientific use of immunizing serums.

The manner of infection in bubonic plague, the occurrence of endemics of the plague in various places, and the possibility that it may reach our own shores—a contingency which may come to pass at any day—show clearly enough that this disease has much more than only a historic significance even for us.

Since the recent appearance of the plague in India and China the opportunities presented for thorough and scientific study of the disease have been used to exceedingly good advantage. We know that bubonic plague is caused by a bacillus which is pathogenic for animals, and that some of these animals, especially the rat, play an essential role in the local spread of this terribly fatal disease. While it is the accepted opinion that the disease is carried long distances by man himself, either in the person of patients or in infected articles of various kinds, yet the manner of extension in the endemics thus started does not depend so much on direct contagion as on the intervention of certain of the lower animals.

According to the investigations of Hankin and Simond, the rat certainly is the carrier of infection. The irregular extension in the cities of India can not be explained as due to infection through air and water. Cases will appear in houses both far and near from original centers of infection, and at the height of endemics the spread is very capricious. In certain parts of Africa the onset of

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an endemic is foretold by the natives from the death of large numbers of rats which then occurs, and when these animals begin to die the natives leave their huts. In Formosa the term "bubonic plague" literally means a disease of rats. The identity of the disease in rats and in man in such cases has been established bacteriologically. Simond has found that in two cases plague developed in men after endemics among rats on board ship. Simond also hopes that the recrudescences characteristic of plague epidemics depend on the appearances of new generations of rats.

The modes of infection are summed up as follows:

1. Through the skin.
2. From the contents of buboes.
3. Through the sputum.
4. Through inspiration, atmospheric conditions, excreta, through the stomach, rat bites and shoe bites.

Diagnosis.—The points to be specially noted in making the diagnosis are the following: (1) Presence of fever, high or low; (2) a quick, easily compressible pulse; (3) furred tongue; (4) the aspect of the patient as shown by the facies pestica; (5) the peculiar hesitating speech; (6) the presence of a bubo; (7) suffused eyes; (8) the presence of cough with rusty or hemorrhagic sputa.

On the bacteriological diagnosis of plague, Dr. C. Balfour Stewart, lately attached to the Plague Research Laboratory, Bombay, writes as follows, in the British Medical Journal, on the 23d of September last:

The following methods are those adopted at the Plague Research Laboratory for diagnosing plague in man or animals, and for testing a plague culture. Naturally, in Bombay we had to do with recent cultures, and the following remarks apply to such. A plague culture grown for a long time on artificial media does not seem to give the same results; at any rate, a culture of plague which has been kept for a long time in a laboratory and which was given me to examine did not grow typically in broth.

Media.—Only two kinds of media are used—agar and broth. It is found impossible to work with gelatine on account of the high temperature. Ordinary agar slant tubes are allowed to dry. Should they be required for use soon after they are made it is best to place them for a few days in a drying bottle, with quicklime at the bottom, otherwise they may be dried by leaving them on their sides in a dark room for a few weeks. If plate cultures are made it is better to prepare the plate and let it dry and make a smear culture.

Broth.—A special peptone solution and infusion of meat made out of goat's flesh is used on account of native religious prejudice against beef

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and commerical peptone, but ordinary broth made of beef infusion, plus 1 per cent. peptone, plus 0.5 per cent. salt, does just as well, or better.

The broth need not be neutralized unless very acid. I have often found the plague bacillus grow better in broth made without any addition of alkali, the reaction of blue litmus paper being a slight tinge of red. As such broth generally gives a precipitate after sterilization and requires to be filtered and sterilized again, it is better for practical purposes to render the broth slightly alkaline, the less the better, and not more than is given by .2 gram per cent. of caustic soda added to the broth after being neutral. About 100 c. cm. should be put in globular flasks of about 200 c. cm. capacity and sterilized at a slightly lower temperature than that at which the broth was originally heated; if this is done, no further precipitate will come down.

Source of the Plague Microbe.--The plague microbe is found in the blood shortly before a fatal termination of a case of plague, so the specimen should be taken shortly before or soon after death.

The sputum of a case of pulmonary plague contains the bacilli. If the bacillus is to be sought for in the bubo, it is better to make a small incision in the skin, and push a small sterilized glass pipette into the gland, and suck up a drop or two of the juice. This should be done before suppuration has commenced.

Temperature of Incubation.—In botany it is found better not to use the incubator. The microbe grows best at the ordinary room temperature. By placing a large number of tubes to incubate under varying conditions, I found the best growth on those incubated at 74 degrees Fahrenheit in a cupboard. In this country an incubator would be required.

Growth on Agar.—The colonies appear in 24 to 48 hours. If numerous, they appear to the naked eye as small, round points, colorless and translucent. Under Zeiss, Obj. A., they are translucent with slightly greenish tinge, granular and have slightly ragged edges.

If the colonies are scanty the individual ones may grow larger, the growth takes place in successive concentric circles round the original colony, which appears heaped up in the center, and is more the color of mother-of-pearl as it grows older.

A plague colony slips about on the surface of the agar when touched with a platinum wire.

If a die agar slant tube is inseminated by introducing 0.1 to 0.2 c. cm. of a broth culture by means of a long thin glass pipette, and if the culture is smeared evenly over the surface with a thin glass rod or with the end of the pipette (care being taken not to dig into the agar), the so-called "ground-glass appearance" is seen after one or two days' incubation. The layer of growth should be viewed from underneath through the substance of the agar with the light coming from opposite, the eye being almost level with the slanting surface of the agar tube held about a foot off. The layer of growth looks like bright ground glass or like the back of a looking glass. The agar must be dry so that it will absorb the broth, leaving the bacilli on the surface. If there is any broth not absorbed or any condensation water present the growth in contact with the liquid is smeary and somewhat milky. After inseminating the tubes it is well to leave them on their sides for a few minutes and then incubate them in the up-

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right position. In examining them, care should be taken not to allow any liquid that may be at the bottom of the tubes flow over the surface of the growth.

This "ground-glass" appearance was first shown by Haffkine. It is a very useful method of testing the purity of a culture known to be plague, because a strange colony is generally detected at a glance. Some microbes, proteus, for example, will grow in amongst the plague, when the film will no longer have a typical "ground-glass" appearance, but will appear somewhat slimy.

Neither is this "ground-glass" appearance peculiar to the plague microbe alone, for I succeeded in separating a spore-forming micro-organism from the air that showed the "ground-glass" appearance after twenty-four hours' growth, but the growth became opaque after forty-eight hours' incubation coincident with the formation of spores.

Broth.—Haffkine considers the stalactic growth of plague in broth to be characteristic of the microbe. He puts a drop or two of cocoanut oil or ghee (native clarified butter) in the flasks before they are sterilized, the oil globules form a thin broken film on the surface of the broth. After inoculation the flask must be incubated on a firm shelf or table. In three to six days numerous thin threads of growth are seen hanging down from the surface into the otherwise clear broth. If the flask is gently shaken, the stalactites fall down to the bottom like a fall of snow, after a time the broth becomes clear again, and in a day or two another lot of stalactites will be found hanging from the surface.

It is most important to keep the flasks still, for the slightest movement or vibration is sufficient to cause the stalactites to drop. A shelf is most convenient to rest the flasks on, because the stalactites are best seen by placing a small candle end lighted behind the flask, and looking through it. If an incubator is used, the flask should be placed on the front of the shelf so as to allow room for the light behind, and the door should be opened very gently. An incubator would have to be kept especially for the purpose. The film of oil probably acts merely as a point d'qupui, it is by no means necessary, but it hastens the formation of stalactites.

In making broth cultivations the writer always inseminated the flasks by means of a thin, drawn-out glass rod long enough to project above the mouth of the flask; one end is held in the fingers, and the rod passed seven times slowly through the flame. The other sterilized end is drawn over the culture, the rod is then passed into the flask between the cotton wool plug and the glass till the end touches the bottom, the unsterilized part of the rod projecting above the plug. If the flask is observed day by day, another characteristic phenomena may be seen; the microbe growth creeps up the glass rod till it reaches the surface, and then gradually spreads out till the surface of the broth is covered with numbers of small round colonies which grow down into the substance of the broth as "stalactites." A few whitish colonies may be seen growing on the bottom of the flask and up the sides; the broth itself remains perfectly clear.

This curious form of growth on the surface of the glass seems to be characteristic of the plague microbe; it proves a useful test, because some idea can be formed before the "stalactites" have had time to grow. If the microbe is found to be growing in this way and if the broth itself re-

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mains clear, so far as the writer's experience goes, it has always turned out to be plague and shows a "stalactitic" growth in a few days more. No fat or oil was used in these cultivations.

Microscopic Examinations.—The plague microbe stains readily with aniline dyes, but not by Gram's method. The bipolar staining in stained specimens when the ends are found to be deeper stained than the center is by no means a constant phenomena and can not be relied on for diagnosis. Mr. Watkins Pritchford considers it due to a greater collection or condensation of the protoplasm in these regions; he notes that the spots are readily visible in the living and unstained specimens, so they can not be due to staining. The detection of the spots he considers to be a most valuable aid to the rapid identification of the germ. Dr. E. L. Marsh drew attention to the fact that plague microbes supended in water dry as a bluish film on a microscope slide; if he does not get this he considers it unnecessary to go on with the staining.

The bacillus is polymorphic; it is sometimes seen as a very short bacillus, almost like a coccus or diplococcus, at other times as a short stumpy bacillus with rounded ends. Very often it is found in pairs as a diplobacillus, and sometimes in distinct short chains. I have found this latter form chiefly in broth, especially in the unneutralized broth.

J. N. HURTY, M. D.,
Chairman of Committee.

The following resolution was presented by Dr. Hurty:

Resolved, When quarantine is established the Health Officer should take the names and addresses of the inmates of the quarantined house, and in case of any escape from the quarantine, the Health Officer in command shall inform the Health Officer at the place of residence of the escaped person.

On motion, the resolution was adopted.

The following paper was read:

TOXINS AND ANTITOXINS.

DR. WILLIAM DODDS, INDIANAPOLIS.

Before the discovery that bacteria were the cause of disease, many scientists believed some diseases due to a living poison which gained entrance to the body from the outside world. This idea was clearly expressed by Parea in the fifteenth century when he wrote about the King's wounds doing badly because of the poisoned air. So the germ theory of disease is not a new theory—only an old belief proven by scientific demonstration to be a settled fact. The greater knowledge of aerology and chemistry has enabled scientists

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to closely study these micro-organisms as regards their growth, environment and physiological products. We are now able to handle these minute bodies with as much accuracy as the farmer does his grain. If we plant the seed of disease upon favorable soil we can predict the nature of the harvest which will develop.

We are so familiar with the most important disease germs that we can follow their life cycle from the beginning to the end with perfect satisfaction. Like all cell life, they are capable of ingestion, digestion and elimination. Upon these three points rests the interesting phenomenon which they produce.

Kircher, in the sixteenth century, originated the idea of a contagium animatum. He believed that the air, the water and the earth vibrate with innumerable insects, and he was able in a crude way to demonstrate his belief. It has been shown everywhere in the world that worms develop out of decomposing substances. But it was not until the wonderful discovery of the microscope that it was possible to show that all putrefying substances contain an innumerable brood of minute "worms" which can not be made out by the naked eye.

In Kircher's crude observation early scientists received the stimulus to look for causes of disease in the microscopic bodies which are ever present in the air, water, earth, pus, etc. So we find that science of to-day is only proving the observations and theories of our fathers in medicine. It will be impossible to give the subject of toxins and antitoxins careful consideration without discussing infection and immunity also. The nomenclature of the science of bacteriology is so confusing and indefinite that frequent explanations will be necessary to make our meaning clear when speaking of toxins, infection, immunity, etc.

By a toxin is meant that substance elaborated by bacterial metabolism, which is in the nature of an albuminoid, and contains certain well-known poisons to the human organisms. A toxin has no reference to the bacterial organism; but it is a distinct body, the result of bacterial growth. Certain bacteria produce a poison out of all proportion to cell production, and whose activity is exceedingly virulent. Other bacteria produce disease more particularly by the change which their presence in the tissue stimulates, rather than by the elaboration of toxins. Examples of the former are tetanus and diphtheria, while of the latter, pneumonia

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and typhoid fever are characteristic instances of bacterial obstruction with little toxemia. However, in pneumonia and typhoid there is not an entire absence of toxic symptoms, as cerebral involvement and temperature will elicit. In tetanus and diphtheria the lesion produced does not extend beyond simple, local necrosis; while in pneumonia, especially, the lesion is very extensive, and the detrimental results are caused by the amount of bacterial development and the inflammatory involvement. Experimental diphtheria and tetanus may be produced by simply injecting their respective toxins, free from bacteria, into the animal, with the result of typical disease symptoms in each case.

This will not hold true with every disease, and particularly with those which are distinctly infectious.

Infections may be divided into classes—toxin and infectious. In the former, the manifestations are caused directly by the living germ, that is, the local symptoms are subordinate to the toxic manifestations, resulting from the absorption of the poisonous substances generated by the bacteria.

On the other hand, the truly infectious diseases, and the disease-germs themselves, play the important role, acting especially through their enormous multiplication.

If this condition takes place throughout the entire body by way of the blood stream, the condition is designated septicemia. The type of such a disease is anthrax, in which, no matter in what situation the infection took place, the bacillus may be found present in every organ and in every tissue in the body.

However, in true septicemias the disease and death are not alone caused mechanically by the indefinite multiplication of the bacteria, but here also the chemic activity of the bacteria comes into play. Upon the other hand, even in cases of tetanus, the most perfect representations of toxic infections, it has been demonstrated that the influence of bacterial multiplication in the course of natural infections is not entirely wanting. In tetanus, however, the multiplication of the germs is quite insignificant and transitory, and the remarkable activity of the poison dominates the clinical picture.

The virulence of bacteria is a varying one. The degree of virulence possessed by bacterial culture taken from the disease focus decreases progressively, in the case of some rapidly, while in oth-

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ers very slowly. Cultures of diphtheria and pneumonia germs lose their virulence with remarkable rapidity, while those of tetanus tubercle remain toxic for a long period of time. The virulence of bacterial cultures can not be depended upon, even when the growth upon media seems to be rapid and healthy. The virulence of bacteria must be considered to correspond to the toxin production; the more virulent bacteria generates a more active toxin, or vice versa.

The reduction of virulent bacteria is prevented to a certain extent by frequent transplantation upon fresh culture media. This may be due in the first place to an exhaustion of nutritive material; or, in the second place (and more likely), to an accumulation of substances inhibiting the metabolic products.

The development of this inhibiting substance in the culture tube leads us up to the discussion of antitoxin. Antitoxin is a chemical product produced in the body during the course of a poisonous disease. It is a well-known fact that animals can be accustomed to increasing doses of a poison, and finally large poisonous doses will not have the least affect. Ehrlick has demonstrated the production of a new body in the blood of animals experimented upon with increasing doses of ricine. This new substance not only protected the animal itself, but its blood was protective to other animals against ricine.

Several theories have been promulgated concerning the action of antitoxins, but the chemic theory has the lead and is probably correct. Antitoxins do not act harmfully upon the bacteria themselves, but counteract the toxins set free by the growing bacteria in the tissue. Antitoxin prevents the pathogenesis of toxic bacteria, i. e., enabling the body cells to endure the injury, and placing the toxic germs exactly parallel with the nonpathogenic bacteria. We no longer dread diphtheria because we know so well that diphtheria antitoxin will positively protect the patient from injury, and a speedy recovery is the result. The same thing is true of tetanus, provided the tetanus antitoxin is used before the body cells are overloaded with the powerful poison.

The obscure prodromal symptoms of tetanus, and the awful constitutional disturbance which comes up so rapidly makes this disease, even with its antitoxins, a most dreaded one.

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If in diphtheria the case is allowed to progress until the patient shows signs of extreme toxemia, antitoxin will do but little good. The place for antitoxin is in the body, working its protective influence upon the cells and not in a carefully sealed bottle to be used as a last resort. If we could make an early diagnosis in tetanus as is possible in diphtheria we would be able to save nearly every case.

I have yet to witness my first death from diphtheria, and I assure you I never want the experience if the early use of antitoxin will prevent it.

The Conference adjourned sine die.

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PASSENGER COACH SANITATION.*

J. N. HURTY, M. D.

Prof. John Fiske, in a recent essay, remarks: "Americans pride themselves on being extremely practical, but we have not yet learned how to ventilate a Pullman car." In view of the havoc wrought by pulmonary tuberculosis, pneumonia and other diseases of the air passages, all largely due to lack of ventilation, this remark is calculated to lessen our conceit and cut our pride of invention to the quick.

At the symposium upon tuberculosis, held by the Section on State Medicine of the American Medical Association at the 1899 meeting, an eminent eastern speaker declared that 75 per cent. of his pneumonia cases gave a recent history of having traveled on sleeping cars. That they acquired the infection on the sleeper can not be positively asserted, but it may in truth be said there can be no better place for acquiring pneumonia than the stuffy sleeping car berth.

The day coach will never be a promoter of the public health, but its sanitary conditions certainly can be greatly improved. A sanitary indictment would say—passenger coaches are insufficiently supplied with air, they have unnecessary microbe and dirt accumulation facilities, they all too thoroughly distribute urine and excreta over the earth, and principally on account of their construction suffer a plentiful lack of cleanliness.

The first step in passenger coach sanitation is sanitary construction. Angles, carvings, panels, beadwork, channeling, all aid uncleanliness; these further the collection of dirt and make cleaning difficult and expensive. Transom ventilation in the deck fitfully and insufficiently changes the air, and is altogether a method which is contrary to physics. Such method does not and can not ventilate a car properly, and sometimes, as when cold air falls through the

*Read at the annual meeting of the International Railway Surgeons' Association, at Detroit, May 30, 1900.

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transom upon the heads and necks of passengers, is almost worse than no ventilation. Dr. Dudley, of the Pennsylvania Company, has devised a method of introducing pure air into coaches which probably meets all conditions so far as is practicable; but the removal of the air through transoms in the deck is wrong, as by such means the warm air is promptly removed, bringing an unnecessary tax upon the heating apparatus, and also because bad air, which is heavy, should always be removed through ducts opening near the floor. Dr. Dudley described his invention now in use on the Pennsylvania system as follows:

> We have experimented with and developed a system of ventilation which promises very good results, and is a great improvement over former methods. The system consists in taking air in at diagonally opposite corners of the car, through a hood, and by means of a downtake underneath the floor of the car to the space bounded by the outside sill, the first intermediate sill, the floor, and the false bottom. This space extends the whole length of the car. From this space the air passes up through the floor into the heater boxes, the aperture in the floor being twelve inches long by two inches wide, and being located between all seats on both sides of the car. In the heater boxes the air is warmed, and from these boxes under each seat the air passes out into the car, and finally to the outside through the ventilators in the deck of the car.

The boxing of the heating pipes, as here described, is attended with material disadvantages. First, needed space, when two persons are in one seat, is taken up; second, unremovable accumulations of dirt occur within the box. While this boxing presents advantages it does not seem essential and I would do away with it.

Prof. S. H. Woodbridge, of the Boston School of Technology, has devised a system of forced ventilation which certainly meets all ventilating requirements. He places in each car a Westinghouse rotary engine of one-horsepower, which drives a fan. The air is drawn through an inlet opening on the side of the car, is filtered through wire gauze and loose woven woolen cloth, and is forced by the fan over steamheated coils, and delivered into the car through registers at various points in the sides and overhead. Each engine is under the control of the engineer of the locomotive. This is unnecessary, because he must be able to control his steam, which at times must be carefully husbanded on account of grades and train burden. The Woodbridge system, while practicable, is expensive, complicated, and altogether dependent upon connection with the

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locomotive occupied. Sleeping cars or day coaches left at terminals or on sidetracks for traffic accommodation could not use the method except steam from stationary boilers could be supplied.

The foul air egress in the Woolbridge plan is through registers placed in the floor beneath the seats at the end next the aisles, and made to open into a duct formed by adjacent floor sills and the upper and lower floors of the car, these ducts to have connection with outboard discharge shafts.

The fan method will probably not be adopted because of expense and complication. In regard to it, a prominent superintendent has said: "We can not build a machineshop in every passenger coach."

The Dudley or Pennsylvania method furnishes sufficient air from the outside and warms it immediately that it enters the car. My modifications would be the abolition of the boxing over the pipes, as unnecessary and sanitarily objectionable, and removal of the foul air near the floor through ducts placed within the closets and the washrooms at both ends. These ducts would be made of galvanized iron as wide as the closet, say 36 inches, and have a depth of eight inches, and lead upward through the roof, terminating in a hood, the ends of which are covered with stout wire netting and within which is a light and easily swinging deflecting leaf or plate which readily responds to wind actions. This leaf will tilt in accord with the direction of the movement of the car, and thus the air forced through the hood when the car is in motion will act the same as a steam injector and aid greatly in lifting the air column within the ventilating duct. The lower end of the ventilating shaft would be raised about eight inches from the floor to permit the entrance of the foul air at the floor level. In order to make the duct have constant draught, a branch of the heating pipes should be placed therein. This would heat the interior, cause the air column to rise, and thus create an upward draft. In addition to this, and for reserve, a Pintsch gas jet could be supplied to the interior of each duct, and this when lighted, would serve to heat the air column and cause it to rise. Four such ventilating ducts, two at each end of the car, would have a combined cross section area of eight square feet, and if the air moved upward through them at the rate of two cubic feet per square foot per second (a slow rate), they will remove each minute, 960 cubic feet, thus effecting a complete change of air throughout the whole car about every six min-

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utes, supplying to each passenger—60 to the car—without about 15 cubic feet per minute. Either standing still or moving, a car equipped as described would be well ventilated.

CLEANLINESS.

The desirability of greater cleanliness and prevention of accumulation of dirt has already been introduced, but not elaborated. The interior of coaches should be as plain as possible. Panels, angles, carvings, bead and channel work are costly, are not necessary for ornament, make cleaning difficult, and are great catchers of dirt and filth. Window frames and sills should be rounding, the car sides perfectly smooth. The seat frames should be perfectly plain, the seat arms never upholstered, but, on the contrary, made of hard polished wood or enameled, and round, simple and plain. The seat supports next the aisle should be simple, round enameled iron posts. Curved, fluted and elaborate supports should not be thought of, and it would be well to do away with footrests, for they are not really necessary; they favor dirt accumulation and are a hindrance to cleaning. The floors should be hardwood, well-filled and kept so. The heating pipes should be all open, no box around them, with a simple smooth curved iron shield over the top pipe between seats. Foot rests or shields of open ironwork over the heating pipes between seats are bad, indeed, yet are frequently used at present. It seems that at present there is nothing to take the place of plush for upholstering. Plush, however, is very bad from the sanitary standpoint. It obviously, in time, becomes a great reservoir of dirt, animal emanations, microbes and all that is offensive. Sanitarily considered, leather upholstering is better than plush, but not to so great a degree as might be believed. It is very expensive and does not wear as well as plush, is cold in winter and does not admit of repair as plush does. Apparently, therefore, plush must be continued and frequent renovation be depended upon to keep it as sanitary as possible. In order to accomplish this, seat frames should be skeleton, and so constructed as to admit of the easy removal of the plush upholstered bottoms and backs. If skeleton frames were adopted, duplicate seats and backs could be kept at cleaning terminals and delay for cleaning be avoided. There is no reason, also, why duplicate cane seats and backs could not be provided for the

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hot months. Slats or blinds should never be used at the windows. Only smooth, impervious material on automatic rollers should be tolerated. The plain, uncarved, unpaneled interior need not be unornamented, for painted panels, stenciling and frescoing would take their place to relieve the eye.

The strip of carpet or matting now frequently seen in car aisles should never exist. It would be allowable to have a rubber strip, which is impervious and susceptible of thorough cleaning. I would abolish, by all means, the carpets in parlor and sleeping coaches. Hardwood, polished floors, with rugs, as we have in our modern homes, would not be practicable because it would be impossible to walk about the moving car owing to slipping. To obviate this, rubber tile flooring could be laid. This would be ornamental, free from slippery smoothness, impervious and in every way practicable and excellent. On it rugs could be spread, and the easy removal of the rugs for cleaning would greatly improve sanitation. Linoleum with rugs would be more sanitary than carpets.

The only way to secure fit drinking water is to sterilize, distill or filter it. It could be dispensed from water tanks, as at present, and the drinking cup should be glass. Tin and metal cups should be carefully avoided. The Pennsylvania road uses glass tumblers with rounded bottoms. These tumblers are, however, always fluted. I would recommend they be perfectly smooth. Of course, careful persons carry their own drinking cups. It would be practicable for railroads to furnish small paper cups in a penny slot machine, attached to the side of the water reservoirs.

The present passenger coach watercloset is a nuisance, pure and simple. Before the car has gone fifty miles it is offensive. By means of it excrement and urine are strung along the tracks, dropped into streams, placed on street crossings and deposited at stations. The soldiers returning from the Spanish War unquestionably distributed not a little typhoid fever over the country from cars. The closet must exist, but how may its nuisance character be abolished? Of course, no matter what its construction, the closet, unless properly cared for, will be offensive, yet much remains to be done on account of better sanitary construction. It is imperative that floor and sidewalls of closets shall be of impervious material, and the sidewalls perfectly plain and smooth. The porcelain hopper should be bell-shaped, with the larger diameter at the

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bottom and the smaller diameter at the top. Such shaped hopper would not so likely become soiled and foul. Instead of receiving excreta upon the tracks, which is frequent in present construction, it should be received in removable drawers or boxes of iron containing dry earth, and an arrangement provided whereby dry earth could be easily supplied in right quantity whenever the closet was used. If all arrangements are proper there would be no attending offense. At terminals the drawers could be removed, emptied, cleaned and returned to place. The mixture of earth and excrement from an earth closet is not near so objectionable as stable manure, and can be profitably used on land as a fertilizer. There surely could be no objections raised at terminals on account of the emptying of these drawers which will not prevail with greater force against stables and privy vaults. The distribution of typhoid fever, and perhaps dysentery, by cars, I consider well proven. As the occasional or even possible killing of persons at crossings is sufficient reason for crossing flagmen and great gates, so certainly the care of excrement on cars is demanded for the same reason.

CLEANING AND DISINFECTING.

Passenger coaches should be continually cleaned en route. This, as we know, is practiced on some roads. In addition, cars must be cleaned at terminals, and should by all means be also disinfected. Being sanitarily constructed as described, a coach on arrival at a cleaning station should have the bottoms and backs of seats taken out and immediately placed in a steam sterilizer of sufficient capacity where they would be thoroughly sterilized and afterward dusted by means of air blast. Or, ordinarily, they might be dusted first and then sterilized. If the seats and backs were kept in duplicate, clean sterilized sets could always be at hand. As soon as this first cleaning step has been taken, the floor of the car should be lightly sprinkled with water containing a very small amount of some efficient disinfectant (formaldehyde preferred), and then swept. Scrubbing with soap and water should then follow, the arms of the seats and all surfaces which need it should be washed and wiped, and all dust taken up with damp cloths.

If a car thus cleaned be closed and allowed to stand a while in the sun, upon opening offensive animal odors are in strong evi-

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dence, hence the necessity of disinfection. For car disinfection, Mr. Garstang, Superintendent Motive Power of the Big Four, has invented a giant spray. This is a strong copper gallon can, provided with an atomizing tube of proper size. It is attached to the air hose, and after filling with formaldehyde, the workman enters the car and proceeds to the opposite end, dragging the hose after him. He now quickly backs out, spraying the chemical onto floor, side-walls, window sills, into corners, and onto bottoms and backs of seats. The air pressure is so strong and the atomizing tube so well adjusted, that the formaldehyde is driven forth more as a nebula than a spray. By means of this nebulizing, the formaldehyde gas is set free and penetrates every part of the car effecting complete disinfection. A car thus treated does not manifest animal odors upon standing closed in the hot sun.

I am glad to record that since plain car interiors were advocated, some five years ago, cars tending in the right direction in this respect have appeared, but I am yet to see the car which is as plain and as free from corners and angles as it should be. Carpets in cars should be abolished, for they are unquestionably a nidus for filth and pathogenic germs.

SLEEPING CARS.

In sleepers, the mens' wash and smoking room, with its carpet, its plush upholstered seats and hangings, is a veritable filth-hole at the end of a trip. Let the impervious rubber tile floor of the wash-room be without even a rug. Let also the rubber tile floor cover the entire car and, if desired, use rugs between seats. The heavy curtain which hangs at the washroom entrance is all too frequently pushed aside by polluted hands. Who can doubt what result would be obtained if a bacteriological examination of such curtain were made. Place there a white curtain and pronounced occular evidence against it being sanitary would quickly be obtained, and in a short time no cleanly person would think of touching it. A plain, hardwood, highly polished door should take the place of these curtains.

The compartment sleeper solves the problem of the abolition of the berth curtains, which as a filth collector has few equals and no superiors. Traveling in Colorado, I once saw a consumptive wipe

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out his mouth with the berth curtain, after a severe attack of coughing followed with expectoration. What magnificent collectors and distributors of pneumonia, diphtheria and like infections car curtains must be. Repeated inquiries have failed to elicit information concerning the steaming of the blankets used on sleepers. Information concerning the washing of sheets, towels and pillow cases can be obtained from any porter, but try to learn, if you will, how frequently the blankets are cleaned. I contend these blankets should be white, and then the story of cleanliness would be always quite satisfactorily told. I have learned that these blankets are frequently aired. This is well, but it is not sufficient, especially as they are aired in railroad yards where conditions are surely not good. Anything less than steam sterilization after every using can not be acceptable. It goes without saying that the mattresses should be frequently submitted to steam sterilization.

DINING CARS.

Many surprises are in store for those who have not made sanitary inspection of dining cars. Carpets should never be found in diners. The rubber tile floor should be used, and extreme plainness of interior exist. The food boxes, when of wood and unlined with impervious material, are an abomination. They can not be kept sweet. Zinc lining is not acceptable, for the zinc wears away, and between it and the wood accumulations which occur bring forth odors to taint the food and possibly to furnish unwholesome decomposition products. Wooden slat shelves in dining car food boxes are extremely unsanitary. I have taken such wooden shelves out which exhaled sickening odors, and which could not be rendered free from smell after soaking in strong formaldehyde. Cleaning and scalding seemed not to lessen the bad odor of these wooden shelves. The discoveries of Vaughan in regard to the formation of poisons in foods, warn us not to trifle with wood or other absorbent material in refrigerators. The dining-car food box should be made of steel boiler-iron and porcelain lined. The slatted shelves should be of metal, and if possible, porcelain covered. Such a food box could be easily cleaned with a jet of steam or by scalding with boiling water. I would emphasize this matter concerning food boxes, for, really, my experience in inspecting them has been disgusting.

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SUMMARY.

The passenger coach must be better ventilated and must be kept cleaner. The method proposed here to obtain better ventilation is in accord with the well-known principles of ventilation and is practicable.

American ingenuity has already given us thermostats, which regulate the heat of cars satisfactorily. Plainness of interior, with abolition of angles and ledges are essential for cleanliness. So, also, does cleanliness demand the abolition of carpets and hangings. And how this may be done without sacrificing elegance, luxury and beauty has been pointed out. In advocating these sanitary features to railroad men objections have only been raised to constructing earth closets. This seems to be an innovation which can not be accepted at the present time. Still it will not do to continue to distribute disease-bearing filth from cars. As all know, this is avoided in Europe by abolishing car closets entirely. As to having skeleton seat frames with removable bottoms and backs which may be sterilized at terminals, I will say godspeed the day which brings them.

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CONTAGIOUS AND INFECTIOUS DISEASES IN INDIANA

J. N. HURTY, M. D.

Indiana has 2,900,000 inhabitants, and not less than 38,000 die annually. One thousand five hundred of the total deaths are caused by accident, 5,500 die before reaching one year of age, and 3,000 die after one and before reaching five years; 10,500 die after sixty-five, and of the remaining 17,340 over 10,000 die from diseases largely preventable.

The preventable diseases are consumption, pneumonia, influenza, diphtheria, scarlet fever, measles, puerperal fever, typhoid fever, diarrheal diseases, smallpox. These diseases are tigers loose in our midst, roaming at will through the land, tearing and rending and killing. Yet we are all too indifferent in the matter, taking the sorrow, the loss, the pain, the widowhood, the orphanage, the destruction of homes, the pauperism, which preventable diseases cause, all as a matter of course. If these diseases were really tigers, killing 10,000 persons annually in Indiana, and maiming 30,000 more, we would close our banks, printing offices, shops and all places of business, lay down our implements of labor and engage in a tiger hunt. As it is, we listen to the preacher at the funeral say, "It has pleased God in His infinite wisdom to take from us our dearly beloved brother," and then go home to see next day the same thing happen again. When will we cease to be so impractical?

Permit me briefly to take up some of the diseases named, these tigers which can be caged and killed, lay forth the destruction caused by each and point out the way to deliverance.

Tuberculosis.—This endemic disease has been aptly called "The White Plague." It kills annually in Indiana 4,000 persons, and at the least estimate there are this moment 25,000 who have the disease and are under sentence of death. In its early symptoms it is almost indistinguishable from a number of other maladies. Many

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times it is called malaria, and it is not until it has reached a certain stage that it can be positively diagnosed. Tuberculosis attacks all races, all ages, and every organ and tissue of the body. We may have pulmonary consumption, which is tuberculosis of the lungs; lupus, a skin disease, is tuberculosis of the skin. We have tuberculosis of the kidneys, bowels, stomach, brain and bones.

Prevention.—The prevention of tuberculosis is a long story. It requires a book to tell it. A few points, however, may be profitably mentioned.

Bad air is a potent cause of the disease. It is the exception to find a dwelling or a public building that is properly ventilated. Foul air weakens the breathing apparatus and lowers the physical tone. Foul air alone can cause malnutrition, nervous disorders and bring debility. When this occurs, the consumption germ may easily find lodgment and produce the disease. Our unventilated schoolhouses lay the foundations of consumption in a percentage of our children. Another percentage, who do not in after life develop tuberculosis on account of the bad air of school days, develop other diseases. Some, of course, go free, escaping all ills. Why not ventilate our schoolhouses in a practical way? The cost of doing it is not one-tenth that of not doing it. Strange to say, however, Trustees not infrequently refuse to build schoolhouses with ventilating ducts because of the expense. Damp houses are the homes of consumption. If a house is built flat upon the ground, it is damp, moulds grow therein, and sooner or later ill health comes to a portion of those who inhabit such houses. Therefore, build houses up off the ground. Make them dry, airy and light. It is extravagant and sadly impractical to build houses flat upon the ground. It would be wise to have a statute making it impossible for a contractor to collect his money who would build a house flat upon the ground. Such a law would be self-enforcing and insure to a greater extent than at present healthy homes to the people. No liberty would be infringed, but on the contrary, more abundant life, health, liberty and happiness would be gained. Another step for preventing tuberculosis would be to stop the sale of tuberculous meat and of milk from tuberculous cows. We can not hope to escape the white plague, and at the same time introduce its contagium into our bodies in food. Some dairymen oppose inspection of their herd and destruction of their diseased animals.

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Why should they, even for dirty dollars, wish to bring disease to their neighbors? Why, also, should Legislatures and Councils hesitate to restrict the sale of poison? There is no State nor no municipal law in Indiana which prohibits the sale of milk and meat infected with the white plague. Is this being practical? Is this good business? Our thousands of consumptives throw off in their sputum daily untold millions of germs. Spitting, however, is very universal. Almost every man will claim it is his right to spit; that is, be nasty, be indecent and possibly transmit his catarrh, his influenza or his consumption to others. Ladies do not claim this right nor practice the indecency. The spitter in public places is a nuisance. He is indecent and respects not the rights of others.

We have in Indiana 92 counties and 1,016 townships. Each county has a poorhouse, and there are on an average two consumptives in each poorhouse, brought there in almost every case by their disease. There is an average of one-half a consumptive to each township taken care of by the Trustee at public expense. This makes for the State 508 more consumptives, all a burden and an expense. The most ridiculous thing about this is, we are careful to handle these unfortunates in such a way as to insure the transmission of their disease. We should be practical and gather these indigent victims of the white plague into a sanatorium where they could be cared for at less expense than at present, but above this, so cared for as to prevent the transmission of the disease from them. We will, of course, do this some day and reap the benefits.

Typhoid Fever.—This disease is another tiger loose in our State, killing, rending, maiming, causing unhappiness and pecuniary loss. Typhoid is a filth disease, and, like sin, is a reproach. It kills annually almost 2,500 people, and ten times this number have the disease and get well. Every one who dies from typhoid and every one who has the disease has drank or eaten human excrement. Why not stop eating and drinking human excrement and be free from typhoid? Let us supply ourselves with pure water, and let us care for our sewage in a sanitary way and reap the benefits of our common-sense procedure. On account of our present impractical and unbusiness-like disposal of sewage, we pay annually in Indiana, at the least estimate, $5,000,000. This is about what our public schools cost. Let us save this vast sum.

You ask, "How shall we proceed? What steps, for instance, can

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the people of Allen County take to insure absence of typhoid?" In answer, sanitary science says: "Here in Fort Wayne and all other cities build efficient sanitary sewers leading to every lot, and compel connections therewith. Then abolish utterly every sink and vault. Clean them out, dig them out and fill up the place with fresh earth or gravel. Carry the sewage away, and at the mouth of the sewer either purify it in sand filter beds, or, better, give it by irrigation to the hungry soil and raise from it abundant, valuable crops. This is now being done in many communities, and those communities have money to lend. They save their money and loan it, instead of spending it upon unnecessary disease. When this is done, or before or during the doing, supply the city with pure filtered soft water. Make certain by purification that no disease germ nor filth is brought to your life in a glass of water. This, too, is now being done by numerous cities. To do it is to be practical, to pursue good business methods, to practice economy. Fort Wayne nor any city can afford to have unfiltered water, to have vaults and sinks. It will not do to argue that pure water and sanitary sewage disposal can not be afforded, for all cities so unprovided are annually expending in unnecessary disease and unnecessary death an amount not less than five to eight times what would be required to pay the interest on the sewer and water debt incurred. Pure water and efficient sewers are a profitable money investment; they are productive of wealth. On farms and in small towns, deep driven wells will supply pure water; or cisterns may be filled with winter rain-water after the rain has descended long enough to wash the air, the roof, the eave troughs and the spouts. Rain water so collected in a clean cistern is ideal water, being both soft and pure. Rain-water for cities is not so practicable as for the country, because of soot, dust, dirt and lack of room. Pure water being provided, the farmer or dweller in small towns should care for all sewage in well-cared-for earth closets. He should avoid piles of stable manure as he would plague. This because house flies, which carry filth upon their feet and deposit it upon our food, are born exclusively in manure. Flies carried the typhoid germs which killed our soldiers at Chickamauga. This is not conjecture, but a fact abundantly proved.

To show the waste of life and health by typhoid fever in Indiana, let us imagine that all the cases of typhoid fever for a year

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should happen at one time and in one place, and should be cared for in dwellings. The total number of typhoid fever deaths per annum in Indiana is, in round figures, 2,000. As there are at least ten cases for each death, the total number of cases is, therefore, 20,000. Twenty thousand persons having typhoid would require for housing a city the size of Anderson or Muncie.

Every five sick persons would give steady employment to two nurses and a laundress. Here then, are 12,000 more inhabitants for an imaginary city of typhoid. For every fifty patients, we will allow one physician, and this adds 400 more inhabitants. The average duration of a case of typhoid fever is forty-two days, so that for six weeks, a population of 32,400 would have to be supported, without in that time producing one penny's worth of anything. If it cost to supply these people with the necessaries of life a little more than it costs to support paupers in our poorhouses, this city of typhoid would cost in six weeks about $400,000. If the doctors and nurses would consent to accept four dollars each week for six weeks for services, we would have to add $303,600 to the expense account. So far we have not charged up anything for the cost of death. Funerals would occur in that city at the rate of something over 333 a week. At the price of a pauper funeral, the 2,000 deaths would cost not less than $20,000. If each citizen who died can be said to be worth the price of a good cow—$40—the cost of the deaths will be increased by $80,000, bringing the total cost of running the city of typhoid for six weeks up to $803,000. If these citizens are worth less than forty dollars each, it would be cheaper to butcher them all at the beginning of their illness. They could be butchered and buried for probably twenty dollars each, a total cost of $40,000, or the remains could be sold to the tankage men at three or four dollars a ton, which would save the $20,000 funeral expenses and yield quite a profit.

If these latter suggestions in the direction of economy are not sufficiently revolting, there is but one more revolting manner of dealing with the problem of the preventable typhoid fever, and that is to permit the disease to go on, year after year, collecting its ghastly toll from the youth and vigor of the State and holding its still more hideous menace over the thousands which it does not destroy.

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The figures here given are based upon absurdly low estimates. If the average citizen was worth what it costs a negligent corporation to kill one, the cost of death alone would be $2,000,000. Certainly it is fair to say that Indiana pays annually for having this miserable filth disease as much as it costs to maintain our public schools. It is possible to cut down sickness from typhoid fever to one-tenth its present measure. This work does not proceed upon theory, nor without example. The story of how typhoid fever has, by simple means, been cut down to one-tenth, or even one-twentieth, of its magnitude, has grown tiresome from often telling, yet the people of Indiana do not listen, and suffer and die and desolate their homes, and suffer enormous losses of money annually.

Are we a practical people to thus refuse to apply sanitary science to our everyday life?

Diphtheria and Scarlet Fever.—These two diseases of childhood exist more or less the year through. The cold months, however, show the greatest prevalence. When our schools open every fall it is a common thing to see newspaper notices of epidemics of diphtheria or scarlet fever, or both. Why should prevalence increase when the schools open? The answer is not far to seek. The children are aggregated in the schools. Some are infected, and the crowding together furnishes an admirable opportunity for transmission. In order to control these diseases every case should be closely quarantined and all householders should feel the grave responsibility of not doing the least thing likely to cause spread of the disease. We find, I am sorry to say, many people, who ask their doctors not to report the fact that diphtheria or scarlet fever has invaded their homes, so that quarantine will not be imposed. Such persons, obviously, are not good citizens. They do not feel their obligations to others. As to the schools, one step necessary to keep them as free as possible from these and other transmissible diseases is to inspect the school children. When the schools open every schoolhouse should be cleaned and disinfected, and made bright, cheery and healthful. Then every child should be inspected medically. An inspecting physician should be at hand and see to it that not a single sick child comes to the school. Any rise in temperature, a red throat, an eruption, sore eyes, parasites, indeed, even the slightest deviation from normal, should insure the exclusion of the child, who should be sent home with a note to

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its parents or guardian telling the situation fully and recommending further examination and treatment if necessary. Medical inspection of school children has now been in force in many eastern cities and some of the larger western cities for several years. The results are excellent. In such schools the attendance, progress and general health is much above the average. It is never necessary to close medically inspected schools on account of epidemics of diphtheria, scarlet fever, measles or whoopingcough. Such loss is entirely avoided. In Indiana every year it is estimated that $100,000 is lost through closing our schools on account of preventable epidemics.

The slate and the common drinking cup are very frequently the means of transmitting diseases. It is possible, and frequently happens that certain children have in their mouths and throats the germs of diphtheria and scarlet fever, yet who do not have the disease. This is because such children are strong, have resistance, or are partially or wholly immune. When such infected children drink with the common cup they are likely to leave on its edge the disease germs they carry. If the next child who uses the cup is weak, perhaps not well nourished, or is susceptible, it very likely will be made sick. It would be hard for even Mr. Edison to invent a better method of passing disease from one child to another. To the bacteriologist and the sanitarian, the common drinking cup and the common bucket of water to dip from is a horrible thing. The slate is almost as bad. It certainly is a dirty implement when spittle is used to clean it, and this is more or less always the case. These school epidemics of diphtheria, and four deaths from diphtheria, have been traced to slates as the means of transmission. The awfulness of diphtheria and scarlet fever appears in the following figures:

From diphtheria 2,000 die annually, and there are 20,000 cases. From scarlet fever 600 die annually, and there are 6,000 cases. Stop and think hard and take in the full import of these figures. Two diseases which are largely controllable make 2,600 short graves during each passage of the earth around the sun, and also cause 26,000 cases of sickness. Of the cases which recover, about 20 per cent. suffer all their lives from ills these diseases leave in their trail.

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Can we afford the cost necessary to chain these tigers? Or, rather, can we afford the cost, ten times greater, of allowing these miserable diseases to kill and maim our children?

Diarrheal Diseases.—Children die by the hundreds every year from diarrheal diseases, and adults also suffer greatly. This class of diseases is caused by poisoning. It is the plain intent of every person to prevent being poisoned by arsenic by simply keeping that poison out of the way and by not taking it. Sanitary science proposes we shall not poison ourselves with diarrheal poisons by the simple method of not having them around and by not taking them. This can be accomplished by abolishing the conditions which form them. Diarrheal poisons form in our food on account of the presence of certain organisms which may be abolished by great cleanliness. It takes only an hour or so for poisons to appear in milk and cold foods after the proper organisms appear. Salads, cold cooked meats, cold cooked vegetables and like articles of food, when kept in unclean cellars, cupboards or refrigerators may at any time in the summer season become impregnated with diarrheal poisons. Who is not familiar with sudden attacks of vomiting after eating, the attacks usually being followed by diarrhea? The food contained the aggravating cause. Strong persons with vigorous digestion can take without effect an amount of diarrheal poison which would throw a weak child into spasms, or perhaps cause death. An ordinarily strong person with temporarily disturbed digestion or temporarily lowered resistance may be poisoned at such time and have severe colic and diarrhea. Cucumbers are said to produce colic. They do so only indirectly. Being hard to digest, they will at times disturb digestion, and then poisons already in the other food eaten, or poisons formed in the stomach on account of the lowered digestion due to the irritating cucumbers, get in their work. This poison idea is not a speculation, is not a theory; it is a demonstrated fact. In scientifically conducted children's hospitals, colic and diarrhea are unknown. The scientific conduction consists in scrupulous cleanliness, in careful preparation and presentation of foods, and in supplying proper diet. Children in such institutions do not attend juvenile parties and feast on candy, cake, ice cream and pickles. Indulgence in such articles is certain to cause a certain amount of disturbance and open the gate for the entrance of poisons and also for the formation of poisons in the

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stomach itself. Intemperance in food is not less an evil than other forms of intemperance. The discovery of science that poisons may, and frequently do, occur in food, being elaborated by certain minute organisms called microbes, will be of benefit to us provided we are practical enough to apply it to every-day life. If we are practical we will by legal regulation make sure that all milk is taken from healthy animals in a cleanly way; that it is cared for in a cleanly way and delivered as fresh as possible. Municipal inspection of dairies and supervision of manufacture of dairy products and supervision of their vending is a greater necessity than police protection. I will close by recounting an experience and investigation by Vaughan, which clearly shows how fresh milk which, on account of an unclean pantry, became poisonous and brought death and sorrow to a struggling farmer.

Mr. S. H. Evans, a poor man and a farmer, living in Michigan, near Ann Arbor, was suddenly taken ill with symptoms resembling arsenic poisoning. Three days after, the son Arthur, a lad of eighteen years, strong and vigorous, suffered in the same way as his father, only more violently. That same evening Mrs. Evans was taken ill with symptoms of poisoning, and the next day Miss Alma, the only remaining member of the family at home was likewise affected. Remedies were administered and good nursing supplied, but to no avail, for the mother, son and daughter died in great suffering. The father, after a long illness, recovered, but never regained full strength. The question was, where did the poison come from, and what poison was it? A long and careful investigation by the doctors and chemists proved that milk and cold foods kept in the pantry became poisonous. The house was old and dilapidated; was built flat upon the ground, and was damp and mouldy. The pantry was especially bad in these respects. The poison—tyrotoxicon—which slew this family always appeared in milk which was kept in the pantry.

This poison is elaborated by certain microbes which find in milk an ideal food for their existence. It is tyrotoxicon or like poisons which, in greater or less amount, cause diarrhea, dysentery, cholera infantum, cholera morbus and similar intestinal troubles. A practical people will not be slow to apply this discovery of science and enjoy the benefits.

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REPORT OF SECRETARY OF THE TWENTY-SEVENTH ANNUAL MEETING OF THE AMERICAN PUBLIC HEALTH ASSOCIATION, MINNEAPOLIS, MINN.

The twenty-seventh annual meeting of the American Public Health Association was held in Minneapolis, October 31 and November 1, 2 and 3. The day before the regular session there was held a meeting of the Committee on Laboratory. This meeting devoted a day's session to the consideration of topics particularly of interest to workers in bacteriological and chemical hygiene as applied to sanitary work.

This meeting was the result of a movement originated by Dr. Wyatt Johnson, at the meeting in Montreal, in 1894. At that time a Committee on Water was formed, and an appropriation of two hundred dollars was set apart by the Association to meet the expenses of the committee.

A meeting of prominent bacteriologists and chemists was called together in New York, and continued two days.* The success of this meeting led its promoters to believe that much valuable work might be done, and contributed to the Association, by another similar meeting in connection with the meetings of the Association. Dr. Johnson therefore called the attention of laboratory workers to the desirability of a meeting at this time. This call was responded to by the presentation of a large number of papers giving the result of original laboratory investigation, from workers all over the United States, Canada and Mexico.

The meeting was held in the well-equipped and perfectly-lighted Laboratory of Medical Sciences of the University of Minnesota. The meeting was called to order by Dr. W. H. Welch, of Johns Hopkins University, chairman of the committee, who delivered a comprehensive but concise address upon the lines of work which had been opened up recently by bacteriological research. He al-

*See abstract of proceedings in Bulletin for June, 1895; also complete report in "Transactions of the American Public Health Association, Volume XX, for the year 1895."

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luded to the work done by Theobald Smith, showing the comparison of virulence between tubercle bacilli of bovine origin and that from human source. He considered that tuberculosis should be managed as any other contagious disease, being reported to the health authorities, especially when the case occurs in tenements, lodging-houses, or in hotels. We should plead for the courage of our convictions, even when they run counter to the public and to the physician.

The experience during the Americo-Spanish war has taught us considerable concerning typhoid fever. There were failures in ability to make correct diagnosis, and secondly there was a lack of observance of hygienic principles. The teachers in the schools have a great deal to account for. The young surgeons were graduates and were taught, but they made mistakes. Malaria was called typhoid, and typhoid was considered as malaria, and, unfortunately, the term "typhoid malaria" still persisted. This was the result of imperfect teaching, and a demand for better instruction must be made. The defect in not carrying out the ordinary hygienic principles shows the effect of poor instruction in the schools. A certificate should be given for special instruction taken in this line. All public health officers should be possessed of a diploma.

Advance had been made in the isolation of the typhoid bacillus —one observer advocating the use of urine as an adjunct to the nutrient media. By this method it may be isolated and distinguished from the colon bacillus. This can be done in twenty-four hours, which is sooner than by the Widal reaction test.

The connection between the mosquito and malaria had been shown. The bacteriologists of this part of the country should investigate and ascertain as to the form of mosquito which has the influence here: whether it is the dappled-winged mosquito, or possibly others which may have that influence. Van Wyck declares that malaria exists without the presence of mosquitoes, and it suggests that there may be other insects which are instrumental in causing the transmission of this disease.

Diphtheria antitoxin only neutralizes, there being only an indirect influence upon the disease.

Yellow Fever.—This subject would come for consideration before the general sessions of the Association. It should be our duty to find out if the Sanarelli bacillus is the organism accompanying

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this disease. The speaker regarded the question as still open. It may belong to the hog-cholera group.

Amoebic Dysentery.—A bacillus had been found in association with this condition, which had rather shaken the belief in the amoeba as a causative factor. This bacillus appeared before the amoeba, and might be considered as secondary to the presence of the bacillus. The speaker, however, did not relinquish the belief in the amoeba. The ground should be gone over again.

Preventative and Curative Inoculations.—It is only curative when we have demonstrated a practical utility, as has been done in the use of antitoxine of diphtheria, and possibly in antivenine. As regards the streptococcus and tetanus, there was much doubt as to the utility of the antitoxines in these cases. It emphasizes the fact that this use of these antitoxines should be placed entirely upon an experimental basis, and should not be left to the hands of the physician to determine the results and effects. This method was adopted in introducing the Koch tuberculin with ill results. Haffkein's inoculations against plague and that against rabies are well founded, and fairly good results were being obtained in typhoid fever.

From the results derived from the agglutination process described by Pfeiffer, it is suggested that immunity may be obtained, and while general vaccination is not applicable to the general public, yet would be desirable in cases of epidemics, or in cases of armies which are to be exposed to any particular disease and where numbers are massed together and exposed to the presence of this disease.

In disinfection the most important part is that which applies to rooms and dwellings. At present there is considerable dissatisfaction. One difficulty is the great unpopularity of the procedure. If we can render the process more simple it will be welcomed. It is a question whether it is necessary at all in some cases, such as conditions where the urine and faeces are the source of the contagion, since this material is not likely to find its way to the walls of the room. It is otherwise when the masterius morbi comes from the mouth. It has been demonstrated that the fine spray projected from the mouth can float in the air and be carried to other locations, as in diphtheria and tuberculosis. In such cases a more thorough disinfection is demanded. In the exanthemata, disinfection is especially indicated.

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The method of procedure is one of question. Formaldehyde has been advanced as a useful means of disinfection, but there has been some apprehension as to the results being reliable and the expense of the apparatus has been a difficulty. The process is not yet thoroughly understood nor the part played by the presence of moisture on the air and the reaction of polarization.

Sewerage Disposal.—The biological treatment of sewage as carried on in the Massachusetts experiments, and which are now being perfected in England, show that the action of the nitrifying bacteria will in a short time be utilized to accomplish the nitrification which now takes place in the upper layers of the soil.

Differentiation of Species.—It would be preferable if we should determine the difference in groups, as we have at present the hog-cholera and the Sanarelli groups. There is the colon group and the typhoid group. We should be cautious about declaring a distinct species. An individual organism may vary its character under different reactions.

Dr. Westbrook, of the Minnesota State Board of Health, reported the "Results of Studies Upon the Distribution of Certain Varieties of Diphtheria Bacillus," attention being called to a case where continued examination of throats of children in an institution had been made, diphtheria having made its appearance.

The children were under strict control and were isolated as it was deemed desirable, in detention wards. This made it possible to keep the different throats under observation without any outside influences to modify the conditions. Cultures were taken from the nose as well as the throat in every case, and the bacilli were found in the nose with remarkable frequency; so much so, that it would seem as if it should be a requirement to obtain a negative culture from the nose as well as from the throat, before dismissal from quarantine. In a large percentage of the cases there was found morphological differences in the appearance of the bacillus. This led to the separation of the cases into groups in which certain bacilli of a certain difference in formation would be maintained in individual cases, and in others the organisms would change as the disease progressed. These forms were found in a large number of the children in whom appeared no active clinical phenomena, such as fever and the presence of membrane. The impression derived from these conditions was that these cases had possibly been slowly

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subjected to the toxic influences presented by the bacilli, and the patients had gradually become immune. In this connection a case was cited where one child, who had not been in the institution previously, was admitted and shortly after acquired the disease, with the characteristic bacilli, and developed clinical symptoms.

Dr. Hibbart Hill, of the Boston City Board of Health, reported upon "Branching Forms of Diphtheria Bacillus." This branching form grows in fifteen hour cultures; and grows either on agar or on serum media, and has the appearance of a growth suggestive of the actinomycetes. He suggested that records of this change be made in other laboratories. On his own records, of 1,315 cases where positive cultures were found, this branching form appeared in 71, or 5.4 per cent. In January the branching forms reached over 50 per cent. of the total. These forms had been noted in the observations of cultures made at Johns Hopkins. These branching forms were usually found with the purer or more characteristic cultures. Dr. P. H. Welch remarked that these modifications were considered by Fischer to be merely caused by changes in environment. It would be better if medical men would adopt the same careful system in classifying as is done by botanists and zoölogists, and that classes should be indicated with capital letters and species with smaller letters. In an observation of an epidemic among the laboratory mice, a branching growth resembling that found in diphtheria had appeared. The lesions were found in the lungs and on the serous membranes. In this growth they presented the appearance of forming colonies rather than tubercles, the dots being scattered over the surface of the tissue simulating the appearance of having been intentionally sown there for planting.

Prof. H. L. Russell, bacteriologist of the Wisconsin State Board of Health, reported the "Results of Experiments on the Conditions Attending the Growth of Gas-Producing Bacteria of Noncolon Types."

There are other gas-producing bacteria than the colon group which may be demonstrated by growth on sugar. The vegetable mould found on trees will produce gas. The gas formula is more constant that the amount of gas produced. If gases are found present there should be some explanation sought for to account for their presence. They are frequently associated with decomposi-

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tion of organic matter and growths taken from the upper layers of the soil.

"Classification of Water Bacteria" and "Standard Classification Methods for Determining the Number of Bacteria in Water," by George W. Fuller, and George A. Johnson of New York.

The first paper consisted of extracts taken from a paper to appear in a forthcoming number of the Journal of Experimental Medicine, and was an attempt to draw the attention of workers in water bacteria to the necessity of uniformity of methods employed in classification; while the second treated of the methods of growing bacteria and the judgments to be made of the results of analyses. These two papers constitute the basis upon which the whole of the bacteriological committee sprung, it having been shown several years ago that unless a worker had been trained into the acceptance of certain definite lines of routine work that he would adopt some variation of method in his work, or make deductions which would not admit of comparison of the work of others; a matter which becomes of practical importance in making judgment on the valuation of different waters which are being selected as a supply for a city or town, as well as leading to contentions as to the comparative value of various methods of filtration, which are being examined for possibility of adoption in purification of supplies.

Consideration was made, first, of the "Vitality of the Organism at the Time of Cultivation for Classification." There are variations in the life histories of bacteria of the same species when subjected to other varying environments of the organism when removed from its natural habitation in water. "We do not know the age of the cells which serve as the basis of laboratory study; we do not know whether water has been the habitation of the cells for some time previous; or whether they have been lodged upon dry soil where their survival has been seriously threatened, and we do not know whether they have recently found favorable conditions for their growth, and if so if they have had to share them with members of other species, thus giving rise to possible modifications of character through symbiosis."

Second. "The composition and methods of preparation of culture media specified by the report of the bacteriological committee, are in a state which seems to be as satisfactory as available evidence allows, and there is no question of the advantages which

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should follow the universal adoption of this important and fundamental step in species work."

Third. "Concerning the temperature of development in species work, it has been our experience that for the purpose of securing data for classification of water bacteria, those data obtained from the several tests with 20 degrees C. as the temperature of development, with a record of ability or inability to grow at 37 degrees C., are sufficient. This saves considerable labor in duplicating most of the work at 37 degrees, and in our opinion tends to make the data more specific, in that it eliminates errors which may arise in some of the tests from failure to differentiate between the absence of growth at 37 degrees and positive growth with negative results."

Fourth. "The Period of development should have a more definite standard practice. To secure accuracy and to avoid methods unduly cumbersome and to avoid contaminations, it is suggested that ten days should be a standard period of development at 20 degrees C. for the consideration of water bacteria."

Preliminary cultivation is useful for rejuvenating bacteria which may possibly have been debilitated. After the trial of various methods the following was found to be the most satisfactory for this purpose:

"After obtaining the bacterium in pure culture it is transplanted to nutrient broth; from the latter, after three days' development at 20 degrees C., to gelatine plates; thence, after the same period of temperature and cultivation, back to an agar tube; and finally, after the agar tube culture has developed for three days at 20 degrees C., the conventional media are seeded."

In this way uniform results with less variation were obtained, and was found of sufficient value in the Cincinnati experiments to warrant its trial in other laboratories as a step in the right direction. By the use of this method a percentage of constancy of test as high as 100 was obtainable.

The difficulty which arises in comparison or differentiation of bacteria studied by different observers has been due to the indefinite style of verbal descriptions, and from each worker giving undue prominence to points of view which were of interest to the observer, but which might appear trivial to others. "It is advisable to discontinue the indefinite methods of describing and recording the results of different tests, and a simple procedure is found in

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the suggestion of Dr. Wyatt Johnson to obviate and to simplify this procedure. This is done by expressing the result as either positive or negative. This procedure was adopted at Cincinnati and found to give very satisfactory results of expression. Although seemingly crude, it forms a basis of unanimity upon which any new advancement may be placed with safety, and avoidance of magnification of description on unessential lines."

A demonstration was here made by means of a chart upon the blackboard, which will probably be printed in the "Transactions," and of which the following is a partial description:

By this chart the resulting data are recorded by the first features of plus or minus signs, and secondly by an arrangement of the species into groups. Although arbitrary, in a measure, yet it has "the convenience of advantages which outweigh the disadvantages in its use in the classification of water bacteria."

"The tests used in separating these water bacteria into thirteen prominent groups were as follows:

Fluorescence and chromogenesis.
Liquefaction of gelatine.
Well marked characteristics of typical colonies on gelatine plates.
Fermentation of carbohydrate.

On the basis of these provisional group tests thirteen groups were obtained, which may be described as follows:

Group I. All fluorescent forms.
Group II. All red chromogenic forms.
Group III. All orange chromogenic forms.
Group IV. All yellow chromogenic forms.
Group V. All violet chromogenic forms.
Group VI. All non-florescent, non-chromogenic, gelatine liquefying bacteria, forming proteus-like colonies on gelatine.
Group VII. All non-fluorescent, non-chromogenic, gelatine liquefying bacteria, forming subtilis-like colonies on gelatine.
Group VIII. All non-fluorescent, non-chromogenic, non-proteus and non-subtilis-like bacteria, which liquefy gelatine and ferment carbohydrate with production of gas.
Group IX. All bacteria conforming to the specified characteristics of Group VIII, except the fermentation of carbohydrate takes place without the formation of gas.
Group X. All bacteria conforming to the specified characteristics of Group VIII, except that no fermentation of carbohydrate occurs.
Group XI. All non-fluorescent, non-chromogenic, non-gelatine-liquefying bacteria, which ferment carbohydrates with the production of gas.

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Group XII. All bacteria conforming to the specified characteristics of Group XI, except that fermentation of carbohydrate takes place without the production of gas.

Group XIII. All bacteria conforming to the specified characteristics of Group XI, except that no fermentation of carbohydrate occurs.

It will doubtless occur to many that there may be a likelihood of the characteristics of one group becoming fused into the closest allied, especially in the case of two of the four chromogenic groups. The writers experienced no difficulty in this direction from the nonchromogenic forms; and the difficulties arising from occasional confusion of the chromogenic groups were overcome as follows:

We learned at the outset that those cultures giving colors which were neither distinctly yellow nor orange must be placed among the nonchromogenic forms. We also learned that it was desirable to employ agar tubes of three reactions in the determination of fluorescent and chromogenesis, namely, 1.5, 0, and —1.5 per cent. referred to the phenolphtalein neutral point.

No difficulty was experienced in successfully handling the red and violet chromogens.

The colors embraced in the four chromogenic groups may be briefly described as follows:

Red.—That color produced by the growth of bacillus prodigiosus on agar.

Yellow.—That color produced by the growth of sarcina lutea on agar, with the dividing line between this and the orange group at the yellow ochre hue produced by the growth of bacillus ocraceus on agar.

Orange.—This color begins just below the yellow ochre stage. The true orange is the same as that produced by bacillus aurantiacus on agar.

Violet.—The same as that color produced by the growth of bacillus violaceus on agar.

In the use of this chart it may be stated that it was our custom to record the characteristics of each new species, as it was found, on a record chart; and, as each new set of organisms were studied, their characteristics were recorded on a similar working chart of the same size. A comparison was facilitated by folding the chart on which the current records were kept so that the characteristics of the form under study appeared on the top line. A glance of the

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eye was sufficient to show whether or not the newly isolated form was identical with any of those previously studied; and if not, wherein it differed from other members of the same group.

In this way we were enabled to record concisely for prompt comparison the leading characteristics of the forty-two species of bacteria found in the Ohio River, at Cincinnati.

As there is a difference in methods of the study of species, there also exists a difference of procedure in the manner of growing the bacteria. Drs. Fuller and Johnson call attention to the following conditions which so effectively modify the results. Attention is called to the difference in the dilution methods between the French school of bacteriologists, who employ at times liquid culture media, and whose period of cultivation lasts over several weeks, and the effectual German methods in which the solid media is employed in connection with a development of two days at 20 degrees C. Individuality of a sample of water would be lost in comparing analytical results by these two methods. The American work is done by methods which are in a measure intermediate between the two methods mentioned. The conventional nutrient gelatine used, however, probably does not give the full possible growth to above 85 per cent. As a result of studies in comparison with the other methods, the German results as a rule represent about 55 per cent. of the number of bacteria which are capable of development in the conventional nutrient gelatine. It is the longer period of development which causes the American results to be so materially higher than the German findings. It should be remembered that there are many water bacteria present which are incapable of growing in the ordinary media furnished; therefore, all results are dependent upon their relative value rather than absolute accuracy.

For the purpose of formulating a standard for recording and observing the growth of bacteria in a manner that may be comparable, one laboratory or worker with another and one water with another, the following propositions are given for consideration of the laboratory committee as a standard.

The following are the main facts that should be observed:

Composition of culture medium.

Reaction of the medium.

Dilution of sample of water, if such be made.

Period of temperature of development.

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"Experience has shown that in the study of the bacterial contents of the Ohio River water, the optimum reaction of the medium ordinarily was nearer 1.0 per cent. than 2.0 per cent., as was found to be the case at Lawrence. Further, it is well known that the bacteria in water from some sources develop much more slowly than in other cases when subjected to exactly the same laboratory treatment."

The most promising results have been obtained by the writers by the use of a simple medium, consisting of meat infusion with 12 per cent. by weight of gelatine. It would appear from studies made that the omission of peptones and salt enables a medium to be of higher nutritive value than is now the case. In the preparation of this medium, special care is required that it shall not be overheated.

"It has been the custom of the writers in preparing this medium to heat the meat infusion over a steam bath, and bring it to a point where coagulation just begins, usually requiring about eight to ten minutes. The gelatine is then added, and as soon as it is dissolved the mixture is tritrated and neutralized. It is next placed over a free flame and allowed to remain until it comes to a sharp boil, the mixture being carefully stirred in the meanwhile. Following this, it is filtered through absorbent cotton or filter paper, and the reaction adjusted to the desired point. After solidification, the medium is autoclaved once for ten minutes at a pressure of fifteen pounds. In order to avoid serious complication from liquefaction, it is very necessary that the amount of heating be as small as possible, and in conformity with the directions stated above."

"In repeated instances at Louisville and at Cincinnati, this medium yielded results in two days' development at 20 degrees C., which are at least 50 per cent. higher than those obtained from the regular nutrient gelatine after a period of three days' development at the same temperature."

A summary of these results is presented in the following table:

NUMBERS OF BACTERIA PER CUBIC CENTIMETER.

Reaction (per cent.)	Regular Nutrient Gelatine.	Meat Infusion and Gelatine.
0.0	110	200
0.5	110	210
1.0	120	160
1.5	80	130
2.0	75	70

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Another point worth mentioning is that it is advisable to use less than 10 C. C. of this medium for each plate, as the smaller quantity apparently facilitates liquefaction."

It is recommended that this modified media be used in different laboratories, in view of the fact that it not only yields more complete results, but also enables them to be obtained more quickly than is the case with the present medium.

"In recording the results of quantitative bacterial examinations, the records show that in many instances the results are expressed in numbers which contain characteristic figures considerably beyond the limits that the accuracy of the methods warrant. It is not unusual to see characteristic figures in the units column, in cases where the number of bacteria per cubic centimeter are found to be 1,000, and even much greater than that. As the methods of analysis are accurate to within not less than 5 per cent., to put the figure very low, this custom involves fictitious accuracy to an unfortunate degree, and there are good grounds for believing that it is a great factor in retarding proper value being placed upon bacterial data by workers along other lines of sanitary science."

"To devise a simple procedure which shall be uniformly consistent from a strictly mathematical standpoint is a difficult matter. At Cincinnati the writers adopted a scheme which is undoubtedly a step in the right direction, and which is as follows:

Number of Bacteria per Cubic Centimeter	Recorded to
1— 50	Nearest unit
51— 100	" five
131— 250	" ten
251— 500	" twenty-five
501—1,000	" fifty
1,001—and over	" hundred

"It seems especially desirable that there should be adopted a uniform practice in this respect by the various bacteriological workers, and it is a point which could apparently be much improved upon if taken under consideration by this committee."

"Notes on Bacterial Methods of Water Analysis," by Prof. E. O. Jordan, Bacteriological Laboratory of the University of Chicago.

Attention is called to the conditions under which bacterial samples of water are gathered and transported. Most samples received

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by laboratories, especially by boards of health, can not be plated at the point of collection, and sometimes several hours must elapse before the samples can be delivered. They are subjected to various conditions of heat and cold. The suggestion that they be packed in ice for transportation is found by the writer to be objectionable, as there is a retardation of or destruction of the growth of a certain number of bacteria which are present at the time of gathering the sample. A sample plated at once showed the presence of 176 organisms; the same packed in ice for 72 hours showed but 39 to the C. C. Another sample, giving 950,000 when immediately plated, gave but 340,000 after a period of 46 hours, having been subjected to zero temperature during that period, while after 72 hours had risen to 480,000. Another, giving 380,000, was reduced to 130,000 in four hours, and returned to 305,000 on standing. These low temperatures did not appear to be injurious to the colon bacilli. The method of dilution is one that should receive attention. If dilution is practiced it should not be a greater one than 1 to 100. With the reaction of the nutrient media, the experience had been that a higher result was obtained with a plus ten than with a plus fifteen. There is also noted a variation in the peptone juice.

"Observation of Odors as an Essential Part of Water Analysis," by Mr. G. W. Whipple, bacteriologist to the Brooklyn Water Department.

A division was suggested of three odors. The usual expression of the variation in odors, such as peaty, mouldy, musty, etc., were not expressive for purposes of comparison or as to determination as to the possible causative factors, which really are the points desired in considering the possibility of contamination of a sample.

It is suggested that a division of three odors be adopted for the purpose of comparison and as an expression of what the possible ingredients of the water may be. There are a great variety of vegetable odors, but the one word "vegetable" might be used, for all these usually have a corresponding brown color. We then have another division of animal odors, and those produced by the natural oils.

"The Iodo-Metric Determination of Small Quantities of Carbon Monoxide," by Prof. L. E. Kinicut, director of the Chemical Laboratory of the Worcester Polytechnic Institute.

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A simple method was presented for the determination of the amount of gas in a room.

"Action of Massachusetts Water Supplies on Lead," by Mr. W. H. Clark, chemist to the Massachusetts State Board of Health.

During the past two years the State Board of Health of Massachusetts has been at work upon the consideration of the action of various waters of the State upon lead pipes. This investigation had been promoted by the occurrence of suspicion of poisoning by ingestion of lead with water in a few of the town supplies. Between nine and ten thousand samples had been analyzed. Examination of ground and surface waters had been made. At Kingston and at Fairhaven, Mass., lead had been found in sufficient quantity in the house supply to show that the pipes had been attacked quite violently. In one instance lead to the amount of two and one-half parts per thousand had been found. In one town the amount found after the water had stood in the pipes for a few hours was as high as eight parts per thousand. This supply was a ground water. The surface waters gave less, varying from .19 of a part where the water had stood in pipes, to .0056 of a part. At Lowell and at Milford, Mass., poisoning also occurred. The soft waters appeared to produce a greater action on the pipes than the hard waters.

"Infection by Milk," by Dr. Adolph Gehrman, bacteriologist of the Chicago Health Department.

Reference was made to the difficulty in obtaining the specimen immediately after the infection had occurred. By the time that an epidemic has called attention to an individual supply the milk infected has passed and the continued supply may not have a continuation of the infection. The conditions under which the milk is delivered frequently aborts any desired attempt to make isolation analyses. It is generally agreed that no bottles or receptacles should be taken by a dealer from infected premises. The milk should be poured by the dealer from his own cans or bottles into the receptacle of the consumer. The milkman should not leave his own utensils there.

Thirty cows were examined by the Illinois State Cattle Commission, for tuberculosis. They were selected from the herd on the assumption that they were free from tuberculosis. By examination, tuberculosis was found present in eight, the test being by growth in guinea pigs. Bacilli were found in all samples of milk.

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The centrifuge was used for the separation of the bacilli in the sediment. The centrifuge was revolved for five minutes; the cream was placed in a second tube, and the first refilled. This process was repeated until a definite amount of sediment was available.

The regular meeting of the Association commenced on October 31, with Dr. Henry Mitchell, President, in the chair, and lasted for three and one-half days.

After the report of the committee, a paper on the "Etiology of Yellow Fever," was presented by Dr. Horlbeck, as chairman. A number of papers on sanitary stations which are about to be established in Mexico were given, showing the intention of that republic to adopt the latest and best methods which are in use in the United States and Canada.

A portion of the general report on yellow fever, contributed by the Mexican contingent, was presented by Dr. Liceaga. Data upon the "Bacteriological Study of Yellow Fever," by Dr. Ismael Pritto Prieto, assistant bacteriologist, Superior Board of Health of Mexico, and also a paper on the "Necessity of Complete and General Disinfection of a Vessel," in order to make it efficacious, and proving the uselessness of partial disinfection in cases of yellow fever, was presented by Dr. Narciso del Rio, Vera Cruz, Mexico. These papers were accompanied with the reports of many bacteriological experiments in disinfection of a technical and systematic character, interesting to the practical laboratory worker.

Papers upon the "Influence of Forests on the Public Health," by Dr. Juan Brenna, Zacetacaz, Mexico, and one by John T. Smock, were presented.

A resolution was presented and passed by the Association approving of the preservations of forests for sanitary purposes and on the advantages to be gained by such preservation.

An address was presented by Dr. Welch, in which he made reference to the topics presented by him at the meeting of the Bacteriological Committee.

"Educational Institutions in Relation to Expert and Commercial Work" was the subject presented by Mrs. Ellen Richards, of the School of Technology, Boston, Mass.

Attention was called to the dangers to which the expert chemist and bacteriologist were exposed by the o'er weening demand of the

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various commercial houses to promote the sale of their various products. A demand was made for the conscientious and honest worker to avoid giving his name to any preparation of medicine, foods, or waters, especially when the goods to be presented for sale to the public were of a doubtful character. The names of many good and respected men had been tarnished by failure to live up to the ethical presentation of the results of their analyses. The expert should hold himself to the facts and permit only the exact conditions found to be presented, and none suppressed.

"Personal Experience in Disinfection," by Wyatt Johnson, was presented, as also the "Experiments on the Infectiousness of Clothing," by W. G. Bissell, bacteriologist of the Health Department of Buffalo.

For the purpose of meeting the expense attendant upon disinfection experiments, Dr. Johnson had instituted a system of disinfection for compensation. He considered that there were few conditions where steam was necessary, and formaldehyde had been used in the various tests or experiments. It was found to be useful in all cases where penetration was not called for, but was not to be relied upon for disinfection of contagious material which was concealed within the pockets of clothing, or under or between bed clothing and blankets. When penetration is required, steam was preferable. Sulphur failed to penetrate, and might do damage to color of fabrics. Formaldehyde did not have this disadvantage. An objection to the use of steam was the liability of shrinkage of woolen materials and of leather.

Use had been made of Kenyoun's apparatus, and the autoclave pattern, the Trilliat. Although with the use of a vacuum penetration was improved, yet it did not give the satisfaction looked for, and did not reduce the time of disinfection materially. With the aid of heat the formaldehyde appeared to work more promptly and efficently. The apparatus introduced by Prof. Robinson, at a previous meeting, was more penetrating than the others when in an inclosed space. It was found impracticable to use it in Canada, on account of the high duty on methyl alcohol. The Schering apparatus was useful only in inclosed spaces of small size. The best results are to be obtained by a process which heats the formalin, and in which a vapor is produced.

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The variation in results arose more from the manner in which the apparatus is used than upon the form of the machine. The Mulford, or Sanitary Construction Company apparatus has the advantage of discharging the fluid into a coil, thus evaporating the formalin drop by drop. It has the advantage that it can be started quickly and can be stopped instantly. The disadvantage found was that it was not easy to control the delivery.

He had rigged up a form of apparatus similar in construction to a student lamp, for the purpose of regulating the pressure. This worked fairly well, especially when the apparatus was full. He had not succeeded in obtaining as successful results as in Chicago, with the use of the wet sheet and formalin. It has the advantage of avoidance from fire, but requires the attendance of an expert in opening the room, on account of the possibility of excess of fumes at the end of the time of exposure; also, the odor persists for a longer time than with the use of the steam apparatus. The method suggested by Gehrman, of sprinkling the clothes with formaldehyde while they were placed in a pile, is a good method. It avoids the annoyance of the use of the sublimate solution. The reduction of the annoyance to the householder is a point to be gained. The amount of penetration depends upon the amount used. Success had been obtained when one pound per one thousand cubic feet of space was used.

It is fair to assume that in the average necessity of fumigation the differential effect obtained by disinfecting the bed is a representation of twenty-five per cent. of the requirements. This may be accomplished by placing a tarpaulin over the mattress or bed as a whole, thus making a confined space with little trouble. The amount of fumes which escape from the tarpaulin may be sufficient to disinfect the rest of the room, while the concentration of the strength is held under the covering. This had the advantage of reducing the time and cost with the same result.

In 200 observations in fumigation in this way, two cases only reappeared on the same premises, one of scarlet fever and one of diphtheria. In the case of scarlet fever, the quarantine was released before a justifiable period had elapsed, being less than four weeks. In the other case, positive cultures were obtained from the throat of the servant girl after the throats of those diseased had been found free.

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Dr. Armand Ravold, St. Louis, Mo., referred to the disinfection of Pullman sleeping cars, using a pint of one part to three of formalin to every 1,000 cubic feet of space.

Dr. E. K. Sprague, Marine Hospital Service, gave the results of experiments made with formaldehyde. A vacuum of one-half atmosphere was produced; the chamber of one of the regular disinfecting chambers in use by the Marine Hospital Service was used, and consists of a 40-inch cylinder of 680 cubic feet capacity. To this was attached an autoclave. Anthrax, typhoid, and diphtheria were the test organisms. They were placed in articles and between mattresses, in the hair and pillows, and in old clothing. Five hundred C. C. of formalin were ejected into the vacuum. It was found that in one hour, only the typhoid and diphtheria were killed. The cultures were placed on slips of old toweling, being saturated with a bouillon culture. In those pieces which were placed under a layer of ten folds of cheesecloth, the organisms were destroyed; but the organisms in the other samples retained their vitality. With heat in this same jacketed cylinder, and a temperature of 90 degrees, anthrax could be easily destroyed in 30 minutes.

Dr. Ravenel, Bact. Penn. Live Stock Com., called attention to the difference in the methods of exposure. It has been found more difficult to obtain positive results when the culture is smeared upon glass. It is possible that the outer layer of albuminous material may form a protection for the under layer of the culture. If filtered paper is used in the same experiments, the organisms on the former will be destroyed and those on the latter will not. A standard method should be adopted by those making these experiments, in order to arrive at some reliable conclusions. He had tried all the different forms of apparatus on the market, and with poor success. By introducing glycerine into the formalin, he had obtained better results.

Dr. Gehrman, Bacteriologist Chicago Board of Health, had utilized the method of spraying the formaldehyde upon a sheet suspended in the room, and also by spraying upon masses of clothing. This method was used by the Pullman Car Company. The exposure was for four hours. The custom in Chicago was to fumigate at about nine in the morning, and to have the rooms opened in time for preparation for the evening meal. It was difficult to destroy cultures on cover glasses.

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Dr. Hurty stated that tests had been made upon the "Big Four R. R." by placing cheesecloth smeared with diphtheria cultures upon the backs of the seats in the cars. The formaldehyde, with 40 per cent. glycerine, was sprayed from a large atomizer under pressure. The regular process of cleaning the upholstery of the cars on this line was quite sufficient in itself to warrant the belief that safety from infection was acquired, for in the routine work of cleaning the cars the cushions are removed and placed in front of a hose with a spread nozzle. From this hose issues compressed air, being under 75 to 100 pounds pressure. This blows out every particle of dust contained in the mesh of the upholstery.

He reported a case of a church which called for fumigation, on account of a case of smallpox while in the pustular stage having been discovered in the congregation. The only thing that suggested itself was to use four pounds of formalin with glycerine and water, and with sprinkling pots the whole church was sprinkled, the orifices being stopped and the furnace heat kept up. Exposure for twelve hours was allowed.

Prof. Robinson thought that all tests should be made under most severe conditions, such as upon hard substances, varnished surfaces, and glass.

Dr. Warner, of Columbus, stated that the difficulty to be considered in the fumigation of cars was to minimize the time during which the cars must be out of service, hence the time occupied in generating the gas must be considered. The bacteriologist of the State Board of Health of Ohio had found in his tests that the prodigiosus was not destroyed in a single case.

Dr. Hibbert Hill, Bacteriologist of the Boston Health Department, called attention to the fact that the use of the pastiles was expensive and had the objection of danger from fire, owing to the necessity of leaving the lamp burning in the room. It was of more practical value to know what would kill the typhoid and diphtheria cultures than anthrax, as these are the diseases with which we have to deal at present, and if they are destroyed we have accomplished all that we desire.

Dr. Westbrook, Minnesota State Board, has tested cultures of diphtheria, typhoid, anthrax, and prodigiosus upon cotton, wool, silk, and glass, moist and dry, but had obtained no uniformity of results.

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On the second day of the program the report of the committee on the "Cause and Prevention of Infectious Diseases," was presented by the chairman, Dr. Peter H. Bryce, Secretary of the Provincial Board of Health, of Ontario, Canada.

Reference was made to the recent advancement in the investigation of causation of communicable diseases during the past year. The plague had been found associated with the presence of fleas and rats. This disease fed to rats does not reproduce the disease; they appear to be immune. The parasites of the rat, however, carried the bacilli within them. It had been found that the point of entrance of the infectious material in this disease was the more delicate portions of the body. There was presented, upon infection, first a papule, then a bullae, which was followed by a pustule. In the fluids of the bullae the bacterium of the disease was to be found. The louse was found also to be a carrier of infection in India. Disinfection was of little value under these circumstances, for during the fumigation process the rats would leave the premises with their parasites, only to return after fumigation was completed. Flies as carriers of typhoid, and mosquitoes as carriers of the breeding host of the malarial parasites, were also spoken of.

"Prevention of Contagious Diseases," by Dr. Frank W. Wright, Health Officer, New Haven, Conn. He considered that it was the duty of the medical profession to support the health authorities, and that although a majority of the profession were willing to assist, yet the adverse criticism, carelessly given by a few, would neutralize the efforts of the majority. There is much difficulty in obtaining the co-operation of the courts. They do not assist, and are rather inclined to hinder the work of the health departments. The antiquated and unsupported belief that it was more desirable to undergo a communicable disease in childhood than in adult life, an error which is carelessly admitted by some practitioners, was the means of doing much harm, since if the exposure is sought, it would not be considered necessary to guard others who entertained different opinions in regard to contagion.

Attention was called to the prevalence of the diseases scarlet fever and diphtheria in Boston, although 60 per cent. of all cases were cared for at the Municipal Hospital. A great amount of assistance in the prevention of the spread of these diseases must nec-

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essarily follow the daily inspection of public schools which is in use in some cities.

"Transmissible Diseases in San Luis Potosi," by Dr. Jesus E. Monjuras, San Luis Potosi, Mexico.

Some general remarks upon the etiology and prophylaxis in communicable diseases were given.

Report of the committee on "Cause and Prevention of Infant Mortality," by the chairman, Dr. Ernest Wende, Health Commissioner, Buffalo, N. Y.

The increase of mortality statistics is dependent upon infant mortality. A reduction of mortality had been effected in Buffalo by attention to the causation of infant mortality; the most efficient factor in this reduction being the prohibition of the sale of long-tube nursing bottles and by the enforcement of milk regulations. In the case of a birth in that city, notification of which is received at the health department through the reports of births, a circular on the care of infants and their foods is sent out to the parents in each case. In this way there had been obtained a reduction in cholera infantum, which disease had been reduced 100 per cent.

The control of epidemics from an infected milk supply was readily obtained by the use of the milk register, through which it was possible to immediately determine the prevalence of any disease upon any particular milk route, and by means of a directory of the supply of milk, the dealers appearing could at once be investigated.

"An Epidemic of Typhoid Fever Due to an Infected Water Supply," was given by Dr. John L. Leal, Health Officer, Paterson, N. J.

"Report of a Four Months' Test of a Mechanical Filter Plant" at East Providence, by Dr. Gardner T. Swarts, Secretary State Board of Health of Rhode Island.

The filter tested was of the Mechanical type, installed by the New York Filter Co. The test was made under the conditions for the entire supply to the town. The rate of filtration was at the rate of 125 million gallons per twenty-four hours. The coagulent used was sulphate of alumina, average of one grain per gallon. The amount of water supplied was 200,000 gallons, although the capacity of the filter was 500,000 gallons. The average removal of the bacteria was 99.2 per cent. The bacterial plantings were grown in the ordinary refrigerator temperature during the sum-

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mer months, and the growth counts made after a period of five days' average. The conventional 10 per cent. gelatine was used, slightly neutral reaction.

There was 1 per cent. less chlorine in the filtered water; 38 per cent. less aluminic oxide; 29 per cent. less free ammonia, and 63 per cent. less albuminoid ammonia; 83 per cent. less color, and an increase of 20 per cent. in hardness. The filtered water was in every instance alkaline.

The paper referred to the objection of making comparisons of different results by percentages of bacteria removal, there being a comparative gain in the number of the organisms in the filtrate. when there was really only an increase of one organism in the count, and also a decrease of efficiency would be recorded by percentages when the number in the applied water was slightly increased, although there was the same count for the effluent as in previous tests.

"The Bacterial Purification of Sewage," by Mr. H. W. Clark, Chemist to Massachusetts State Board of Health, Boston, Mass.

This paper gave the results of the deductions which had been made as the result of the long series of investigations and experiments conducted by the State Board of Health, Massachusetts, at Lawrence, and at Worcester, Mass. The subject treated of the automatic or self-purification of sewage by permitting the micro-organisms of nitrification to perform their functions as intended by nature. It was maintained that the treatment by chemical precipitation would cease to be considered when the advantages of this method shall have been fully understood.

Report of the committee to "Examine Into the Existing Municipal Organizations of the Country Belonging to the Association, with a View to Report Upon Most Successful Methods in Practical Results," presented by the chairman, Dr. Charles V. Chapin, Superintendent of Health, Providence, R. I.

Extensive and complete information relating to the methods for control of disease, and the methods in vogue for the control of sanitary requirements in all the cities of the Provinces, the United States and Mexico, were presented. The health official in large cities should have control of all food supplies, should remove all garbage and refuse, should be provided with bacteriological laboratories and contagious disease hospitals.

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"Rural Sanitation in England," by Mr. W. H. Allen, University of Pennsylvania, Philadelphia, Pa.

Reference was made to the complete control of all sanitary matters, and the regulations which controlled, successfully, all minor requirements of the health departments. The people of this country, from long submission to authority, cheerfully complied with requirements as a matter of habit.

"History of Vaccination," by Dr. Wm. Bailey, President State Board of Health, Kentucky, Louisville, Ky.

An historical sketch of the introduction and growth of the procedure was given.

"Accidents of Vaccination," by W. C. Woodward, Health Officer, District of Columbia, Washington, D. C.

He referred to the influence the mechanical process attending vaccination had in the production of disagreeable results. That while attention should be and is given to the production of a virus aseptic of pus-producing organisms, yet the accidents which occurred at the point of vaccination to the vesicle during the period of incubation and after convalescence was accountable for many sore arms.

The committee on "What Constitutes an Epidemic," by Dr. U. O. B. Wingate, Chairman and Secretary State Board of Health, Wisconsin, presented the following definition: "An epidemic is an outbreak of a communicable or infectious disease affecting a dozen or more individuals in quick succession before the recovery of the first case, whether arising from a single focus or from several foci in the neighborhood."

This definition not being acceptable to the executive committee, it was voted to refer the subject back again to the committee for further consideration.

"The Official Definition of Diphtheria," by Dr. Hibbert Hill. It was maintained that the disease is present only when the active diphtheria bacillus is present. The clinical diagnosis is frequently so characteristic that the presence of the bacillus may be inferred; yet it is advisable to obtain a culture from the throat in all such cases, and demonstration of the bacillus made. The second proposition was that the presence of the diphtheria bacilli without the production of recognizable lesions, does not constitute the disease of diphtheria, although such persons are a source of infection. It

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was suggested that all legislation in reference to the quarantining or control of this disease be so worded that the presence of the bacillus should be sufficient to warrant the health department in maintaining quarantine.

The discussion upon this paper was very general. The test in animals was too slow to be practicable for diagnostic purposes. We are therefore obliged to depend upon the physical appearances. There are four classes of cases. First, persons who exhibit the clinical symptoms; second, persons who have no clinical symptoms but are or have been associated with clinical diphtheria, and in whose throats are found typical diphtheria bacilli; third, persons with no clinical symptoms, not associated with the disease in any way, and yet who show the presence of morphological typical diphtheria. In these cases the regulations should be governed by the surroundings, but should be isolated. Fourth, cases in which there are no clinical symptoms and no exposure to the disease and in which there is the presence of an organism which is morphologically typical, but which is ordinarily not pathogenic to animals, but is so sometimes. The patient should not be released from quarantine until two negative cultures have been obtained from the throat of the patient—not only from the nose but from the throat. One case was cited where the organism persisted in the throat for 70 examinations and over a period of nineteen and one-half months.

The legal phase of the question is the one which besets the Health Officer. Dr. Bryce thought that there should be restraint of the first two classes cited; that membranous croup should be treated in the same manner as typical diphtheria.

With the absence of clinical disturbances and the presence of the bacillus, it is not policy, nor necessary, that the same severe quarantine should be exercised as in a typical case; that is, the quarantine enforced in such a case should be in proportion to the danger involved. The Health Officer has a problem to decide which must be decided on the merits of each individual case, and can not be held by hard and fast rules that would be laid down in the laboratory.

"The Nature Treatment of Tuberculosis," by R. O. D. Beard, Minneapolis, Minn. It was maintained that tuberculosis should be quarantined, as is done with yellow fever. Sanatoria should be established by the State for the care of consumptives. Rural life, or

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dwelling in the country, should be encouraged. A plea was made for the preservation of the forests of the West, for the purposes of laying out parks which may be used as resorts for convalescents, or for those suffering from this disease. The influence of forests upon the water supplies was alluded to. Large tracts of forests were to be found in the State of Minnesota which should be preserved as a national park.

Dr. Walter A. Suiter, Herkimer, N. Y., introduced a resolution, wherein the Association approved of efforts such as were now in progress in the State of New York, where encouragement had been given to biological laboratories for the research into the etiology of cancer. Some encouragement had been professed, as the result of recent investigations of Herbert Pease, at the State Pathological Laboratory, at Buffalo, that the causation of this disease might be determined. The laboratory had received an appropriation from the State of $10,000 for this purpose alone.

Dr. C. P. Wilkinson, New Orleans, La., described "A Leper Home," which had been established on the Mississippi, having extensive grounds, together with the necessary seclusion.

"Treatment of Garbage and Excreta in Military Camps," by Dr. Benj. Lee, Secretary State Board of Health of Pennsylvania.

It was stated that of the 5,731 American men who died in the late war with Spain, but 450 died of wounds received in battle. That nine-tenths of the disease was preventable, and that a majority of the deaths were of cases which had not left our soil. Flies, as disseminators of disease, were alluded to, and considered as the cause of the spread of typhoid, epidemic dysentery, and camp diarrhea.

Camps should be provided with some form of garbage furnace. There was a portable one made in three sections. In the absence of possibility of disposing of the excreta by burning, the company sinks should be quicklimed often. Formalin is too expensive. Carcasses should be burned, not buried. A good way to disinfect and destroy at the same time is to cover the material over with rosin, and burn. A large quantity of disinfectants in the form of solution should be near all tents where soldiers are disabled, and are too far removed from the sinks to avail themselves of the same, especially in cases of bowel diseases. Invalids having bowel dis-

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ease should be provided with buckets and disinfectants. The latrines should be protected with mosquito netting.

"Waste Disposal and Its Advances," by Mr. MacDonough, C. E., Cravens, New York City, N. Y.

A large amount of valuable detail was given in regard to the proportions of the various materials which were found in city wastes, particularly in New York City, as well as the values attached to the sale of the materials sorted.

There was found in the ashes collected, as much as 20 per cent. of removable ashes, 15 per cent. of clinker, 15 per cent. of coarse ash, and 15 per cent. of fine ash, which was useful for disinfecting purposes. It is dry, and desiccates moist wastes. It was also useful in mixing with street sweepings. From the ashes, 75 per cent. of inert material was separated. From flats, 35 per cent. of good material was saved; from house furnaces, 40 per cent. Ashes was useful in mixing either mortar, sand or cement for building purposes. Certain forms of ashes and clinkers combine to form good concrete. During two and a half years there have been handled, on the average, thirteen and one-half million pounds per year; 5 per cent. is noncombustible; 35 per cent. is recoverable and saleable. Much depends upon the expertness of the pickers. In the market the saleable materials vary as to demands. Rubber may find a ready sale for a few months, and then the demand may be for some other product. Iron and tin workers do not add to the values, as they reserve their own scraps and sell direct.

"The Next Step in Waste Disposal," by Col. W. F. Morse, New York City, dealt in the consideration of garbage wastes. This consists of 66 per cent. of water, 34 per cent. of solids, and 7 per cent. of fats. The average recoverable grease was 3 per cent., and average available solids from garbage, 25 per cent. The reduction system was considered the most economical. The points to be gained were by the disposal of wastes without creating a nuisance; reduction of cost of cremation by employing the waste as a fuel; separation and sale of articles which have value and utilization of the heat from burning waste.

The following officers were elected for the ensuing year:

President, P. H. Bryce, Toronto; First Vice-President, H. M. Bracken, Minneapolis, Minn.; Second Vice-President, Juan Brena,

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Zacatecus, Mexico; Secretary, C. O. Probst, Columbus, O.; Treasurer, Henry D. Holton, Brattleboro, Vt.

The Executive Council recommended to the section of bacteriology the names of Theobald Smith as Chairman; F. F. Westbrook, Vice-Chairman; Wyatt Johnson and Adolph Gehrman, Secretaries.

The next meeting place is to be at Indianapolis, Indiana.

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OFFICIAL REGISTER OF PHYSICIANS AND MIDWIVES.

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OFFICIAL REGISTER OF PHYSICIANS.

ABBREVIATIONS.—R, for regular; E, for eclectic; H. for homeopathic; PM, for physio-medical; HT, for hygeia therapeutic; B, for Botanic; NR, for not reported; D, for diploma; 10, for ten years' practice; 3, for three years' practice; * shows that certificate has been issued but had not been presented to County Clerk for license to August 1, 1901.

The following list includes all certificates issued to August 1, 1901:

Adams County.

Name.	*Postoffice.*	*School.*	*Basis of License.*
Aspy, H. M	Geneva	R	3 yrs.
Beardsley, E. J	Decatur	H	D
Beaver, Seth D	Decatur	R	"
Boyer, J. S	Decatur	R	"
Brayton, W. R	Geneva	R	"
Calderwood, —	Steele	R	"
Clark, D. D	Decatur	R	"
Clark, C. S	Decatur	E	"
Costello, H. F	Decatur	R	"
Coverdale, J. S	Decatur	R	"
Ford, Adam C	Geneva	E	3 yrs.
Franz, Ernest	Berne	H	D
Grandstaff, J. C	Preble	E	"
Haughton, Asa	Linn Grove	R	10 yrs.
Halloway, M. L	Decatur	R	D
Halloway, A. G	Decatur	R	3 yrs.
Keller, H. E	Decatur	PM	D
Kuntz, Christina	Berne	R	10 yrs.
McDowell, Jacob	Geneva	E	"
McEvoy, Francis	Geneva	R	D
Mattox, L. L	Geneva	R	"
Miller, J. M	Decatur	R	"
Parrish, M. F	Monroe	R	"
Reusser, Amos	Berne	H	"
Schenk, C. H	Berne	PM	"
Thomas, P. B	Decatur	R	"
Vizard, J. W	Pleasa't Mills	R	"
Ward, James B	Geneva	R	"
Wilson, R. S	Berne	R	"

Regular, 20; Eclectic, 4; Homeopathic, 3; Physio-Medical, 2. Total, 29.

Allen County.

Adams, Horace E	Maysville	R	NR
Bader, Samuel D	Ft. Wayne	H	"
Banning, E. P	Ft. Wayne	H	"
Banning, C. B. C	Ft. Wayne	H	"
Barnett, W. W	Ft. Wayne	R	"
Bergk, Chas	Ft. Wayne	R	"
Betts, A. P	Woodburn	R	"
Bickell, John E	Ft. Wayne	R	"
Bilderback, J. W	New Haven	R	"
Bock, C. F	Ft. Wayne	R	"
Bolling, L. A	Ft. Wayne	R	"
Bowen, G. W	Ft. Wayne	H	"
Bower, G. B. M	Ft. Wayne	R	"
Brudi, G. G	New Haven	R	"
Bulson, A. E	Ft. Wayne	R	"
Calvin, W. D	Ft. Wayne	R	"
Calvin, Jessie C	Ft Wayne	R	"
Carg, David B	Spencerville	E	"
Clark, Battle	New Haven	R	"
Coblentz, J. W	Ft. Wayne	R	"
Connolly, W. A	Monroeville	R	"
Corfman, A. J	Ft. Wayne	PM	NR
Cosgrove, F. K	Harlan	R	"
Crull, Eric A	Ft. Wayne	R	"
Culp, L. L	Ft. Wayne	R	"
Cutshaw, Geo. W	Arcola	R	"
Dancer, C. R	Ft. Wayne	R	"
De La Ruhl, Wm	Ft. Wayne	R	"
Deming, N. L	Ft. Wayne	R	"
Deppeler, R	Ft. Wayne	R	"
Derbyshire, L	Ft. Wayne	R	"
Devaux, E. F	Ft. Wayne	E	"
Dinnen, James M	Ft. Wayne	R	"
Drayer, L. P	Ft. Wayne	R	"
Duemling, H. A	Ft. Wayne	R	"
English, C. H	Ft. Wayne	R	"
Enslen, Wm. McC	Ft. Wayne	R	"
Fair, C. S	Ft. Wayne	R	"
Gard, Brookfield	Ft. Wayne	E	"
Greene, M. F	Ft. Wayne	R	"
Greenwald, M	Ft. Wayne	R	"
Greenwalt, G. L	Ft. Wayne	R	"

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Allen County—Continued.

Name.	Postoffice.	School.	Basis of License.
Greenwell, F. B	Huntertown	R	NR
Gross, W. O	Ft. Wayne	R	"
Harrie, S. H	Ft. Wayne	R	"
Hammond, A. K	Ft. Wayne	R	"
Harris, A. H	Ft. Wayne	R	"
Harrod, Morse	Ft. Wayne	E	"
Harrod, John	Ft. Wayne	E	"
Heron, Nathan	Ft. Wayne	H	"
Hetrick, Jacob	Ft. Wayne	R	"
Hickman, T. L	Ft. Wayne	PM	"
Hollingsw'th, S. G.	Maysville	R	"
Houghton, Lloyd	Huntertown	R	"
Julian, E. T	Maysville	R	"
Kannel, J. W	Ft. Wayne	E	"
Kauffman, D. E	Monroeville	R	"
Keely, Geo. W	Ft. Wayne	R	"
Kesler, A. J	Ft. Wayne	R	"
King, Edward	Five Points	R	"
Ladd, F. B	Ft. Wayne	R	"
La Follette, G. W.	Poe	E	"
Leslie, G. M	Ft. Wayne	R	"
McBride, Jas. L	Zanesville	R	"
McCasky, G. W	Ft. Wayne	R	"
McCausland, J. W.	Ft. Wayne	R	"
McClure, Wm. H	Edgarton	R	"
McComb, W. S	Sheldon	R	"
McCormick, T. H	Ft. Wayne	R	"
McEvoy, J. B	Ft. Wayne	R	"
McGoogan, G. B	Arcola	R	"
McHugh, Jas. E	Ft. Wayne	R	"
McKee, H. N	Woodburn	R	"
McKeeman, R. B	Ft. Wayne	R	"
McOscar, E. J	Ft. Wayne	R	"
Martz, C	Ft. Wayne	H	"
Mayo, W. R	Ft. Wayne	R	"
May, O. T	Monroeville	R	"
Mendenhall, Chas.	Ft. Wayne	E	"
Mendenhall, C. J.	Ft. Wayne	R	"
Mentzer, S. E	Monroeville	R	"
Merz, H. G	Ft. Wayne	H	"
Mikesell, A. L	Ft. Wayne	H	"
Miller, J. E	Ft. Wayne	R	"
Morgan, E. E	Ft. Wayne	R	"
Morgan, Jos. D	Dixon	E	"
Murphy, Geo	Leo	R	"
Myers, I. M	Maples	R	"
Myers, Wm. H	Ft. Wayne	R	"
Neuman, F. T	Ft. Wayne	E	"
Nieschang, C. F	Ft. Wayne	R	"
Nichols, John	Ft. Wayne	R	"
Niswonger, H. W.	Ft. Wayne	R	"
Noble, ——	Cedarville	NR	"
Null, L. S	New Haven	E	"
Ogle, John J	Ft. Wayne	E	NR
Perry, Wm. H	Ft. Wayne	H	"
Porter, Miles F	Ft. Wayne	R	"
Proegler, Carl	Ft. Wayne	R	"
Ranke, J. W. H	Ft. Wayne	R	"
Renner, Uriah	Ft. Wayne	E	"
Robinson, A. J	Ft. Wayne	R	"
Robinson, Andrew	Ft. Wayne	R	"
Rosenthal, I. M	Ft. Wayne	R	"
Rosenthal, M. I	Ft. Wayne	R	"
Ross, Geo. A	Ft. Wayne	H	"
Schick, Martin F.	Ft. Wayne	R	"
Schilling, Carl	Ft. Wayne	R	"
Schilling, John	Ft. Wayne	R	"
Schneider, A L	Ft. Wayne	R	"
Schrader, W. F	Ft. Wayne	R	"
Shutt, John M	Spencerville	E	"
Shutt, Lewis C	Sheldon	E	"
Schulz, A. F	Ft. Wayne	H	"
Sheets, Oscar B	Ft. Wayne	R	"
Sinclair, Isaac	Ft. Wayne	R	"
Simon, Joshua	Ft. Wayne	E	"
Sledd, S. D	Ft. Wayne	R	"
Smith, W. A	Hoagland	R	"
Smith, J. L	Hoagland	E	"
Smith, E. D	Leo	R	"
Smith, Nelson B	Ft. Wayne	R	"
Stemen, C. R	Ft. Wayne	R	"
Stemen, Geo. C	Ft. Wayne	R	"
Stemen, Harriet F.	Ft. Wayne	R	"
Stemen, Geo. B	Ft. Wayne	R	"
Stevens, Annie M.	Ft. Wayne	R	"
Stults, Jos. E	Ft. Wayne	R	"
Stultz, J. A	Ft. Wayne	H	"
Sturgis, L. T	Ft. Wayne	R	"
Swarts, W. W	Poe	R	"
Sweringen, B. Van.	Ft. Wayne	R	"
Swift, C. F	Maysville	R	"
Thain, George	Ft. Wayne	R	"
Thompson, T. E	Ft. Wayne	R	"
Tinkham, M. W	Ft. Wayne	R	"
VanBuskirk, A. E.	Ft. Wayne	R	"
Wagner, E. F	Ft. Wayne	R	"
Waldron, Joel H	Ft. Wayne	R	"
Wallace, J. C	Ft. Wayne	R	"
Wenger, N. R	Ft. Wayne	R	"
Wermuth, A. F	Ft. Wayne	R	"
Wheelock, K. K	Ft. Wayne	R	"
Wherry, Wm. P	Ft. Wayne	R	"
Wherry, Mary A	Ft. Wayne	R	"
Worden, Jas. W	Ft. Wayne	R	"
Younge, John W	Ft. Wayne	R	"
Zimmerman, C. A.	Ft. Wayne	PM	"

Regular, 115; Eclectic, 17; Homeopathic, 12; Physio-Medical, 3; not reported, 1. Total, 148.

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Bartholomew County.

Name.	Postoffice.	School.	Basis of License.
Arnold, J. W	Columbus	R	D
Arwine, John S	Columbus	R	10 yrs.
Arwine, Lotta R	Columbus	R	D
Arwine, James T	Asst. Sur. U.S.A. Washington	R	"
Banker, W. T	Columbus	R	"
Banker, A. J	Columbus	R	"
Banks, Wm. H	Wymansville	R	10 yrs.
Beck, F. J	Hartsville	R	D
Beck, Wm. H	Hartsville	R	"
Biddinger, S. W	Hartsville	E	10 yrs.
Butler, W. H	Columbus	R	D
Carmichael, W. T	Walesboro	PM	"
Clouse, Bertha A	Hope	R	"
Coffee, William	Newbern	R	"
Cohee, Wm. H	Elizabethto'n	R	"
Cosby, G. O	Burnsville	R	"
DeLong, O. A	Azalia	PM	"
Edwards, J. J	Walesboro	PM	"
Elrod, Moses N	Columbus	R	"
Fitzpatrick, B	Hope	R	"
Francis, E. T	Columbus	R	"
Hauser, Zack H	Columbus	R	"
Hawes, J. K	Columbus	R	"
Hawley, K. D	Columbus	R	"
Holder, R. H	Columbus	R	"
Kent, C. V	Hope	R	"
Kincaid, S. F	Taylorsville	E	10 yrs.
Kirkpatrick, A. M	Columbus	R	D
Lawrence, Wm. M	Jonesville	R	"
McCoy, Geo. T	Columbus	R	"
Marshall, D. J	Columbus	R	"
Mennet, O. H	Columbus	R	"
Morrison, J. H	Hartsville	R	"
Norton, F. D	Petersville	R	"
Oldham, G. L	Clifford	R	"
Oldham, Harry M	Clifford	R	"
Reed, L. D	Hope	R	"
Regannas, E. G	Hope	R	"
Rice, Alfred	Columbus	H	"
Richards, F. B	Taylorsville	R	10 yrs.
Roope, A. H	Columbus	R	D
Shane, Thos. A	Columbus	H	"
Shewman, E. B	Wymansville	E	"
Shields, James	Jonesville	R	"
Smalley, J. K	Hartsville	R	"
Smith, N. G	Columbus	E	"
Smith, Wm. A	Jonesville	R	"
Stapp, Simeon	Hope	R	10 yrs.
Thompson, D. A	Elizabethtown	R	"
Voris, S. M	Columbus	R	"
Wisner, W. E	Columbus	R	"
Wood, Elmer U	Columbus	R	"
Wright, J. F	Columbus	R	"

Regular, 44; Eclectic, 4; Homeopathic, 2; Physio-Medical, 3. Total, 53.

Benton County.

Atkinson, Curtis	Oxford	R	L
Bloom, Harvey G	Oxford	R	"
Cook, Clark	Fowler	R	"
Cook, Robert C. N	Boswell	R	D
Christley, S. B	Boswell	R	L
Chenoweth, O. A	Otterbein	R	D
Dolman, Jos. W	Boswell	R	"
Epperson, Adah	Oxford	R	"
Eads, Charles V	Ambia	R	"
Fall, Charles W	Oxford	R	L
Flack, Ore M	Ambia	R	"
Fenton, S. C	Boswell	R	"
Green, Nellie E	Fowler	R	"
Holloway, Jas. P	Oxford	H	"
Hunter, Abram C	Raub	E	D
Leeming, Louis	Otterbein	R	L
Mavity, David E	Fowler	R	"
Moorehouse, J. L	Fowler	R	"
McMahan, J. W	Earl Park	R	D
McCrea, D. P	Talbott	R	"
Neighbors, A, G	Fowler	R	"
Petet, Marshall	Boswell	R	L
Price, Geo. R	Fowler	O	NR
Roberts, S, R	Oxford	R	L
Smith, Ward A	Otterbein	R	"
Thompson, T. J	Otterbein	R	"
Watson, A. A	Earl Park	R	D

Regular, 24; Eclectic, 1; Homeopathic, 1; Osteopathic, 1. Total, 27.

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Blackford County.

Name.	Postoffice.	School.	Basis of License.
Bell, C. L.	Hartford City	R	D
Biggerstaff, J. F	Hartford City	R	"
Bloxome, A. W	Montpelier	R	"
Clapper, M. M	Hartford City	R	"
Clauser, N. D.	Hartford City	R	10 yrs.
Cory, Chas. W.	Hartford City	R	D
Cronin, M. D.	Roll	R	"
Davison, H. C.	Hartford City	R	"
Dodds, Thos. C.	Hartford City	R	"
Drayer, Peter	Hartford City	R	"
Emshwiller, M. A.	Montpelier	R	"
Hardin, Alfred	Hartf'd City	PM	"
Harrold, John R.	Roll	R	"
Hollis, Samuel	Hartford City	R	"
Hollis, Ella A.	Hartford City	R	"
Landon, L. C.	Priam	R	10 yrs.
Lorimo, J. H. D.	Hartford City	R	D
McFarland, J. A.	Mill Grove	E	10 yrs.
Maddox, L. E.	Montpelier	R	D
Mason, C. R.	Hartford City	R	"
Mulvey, Chas. B.	Montpelier	k	"
O'Day, John C	Montpelier	R	"
Reed, H. B	Montpelier	PM	"
Reynolds, F. M	Montpelier	R	"
Sellers, John	Montpelier	R	"
Sexauer, C. F.	Hartford City	R	"
Scott, W. L.	Hartf'd City	PM	"
Taylor, Jas. A	Montpelier	R	"
Thompson, W. H.	Hartford City	R	"
Trutt, Ruliff L	Hartford City	H	"
Wheeler, Wm. H.	Hartford City	H	10 yrs.
White, L. E	Montpelier	E	D
White, R. B	Montpelier	E	10 yrs.
Wilson, L. D	Hartford City	R	D

Regular, 26; Eclectic, 3; Homeopathic, 2; Physio-Medical, 3. Total, 34.

Boone County.

Name.	Postoffice.	School.	Basis of License.
Alford, Jas. S	Zionsville	R	L
Armstrong, C. R.	Thorntown	H	"
Austin, F. H	Jamestown	E	"
Ball, James R	Lebanon	R	"
Bennington, A. M.	Max	R	"
Bounell, T. A	Jamestown	R	"
Brown, Eli L	Thorntown	E	"
Burk, T. B	Advance	R	"
Bounell, E. G	Lebanon	R	"
Brant, Newton	Jamestown	R	"
Brendel, John F.	Zionsville	PM	"
Borger, David D.	Terhune	E	"
Coons, H. N	Lebanon	H	"
Cotton, Henry T.	Zionsville	R	"
Dorman, W. A	Lebanon	R	"
Davis, David B	Thorntown	R	"
Engleman, L. P	Rees Mill	R	"
Fitch, Alex. P	Lebanon	R	"
Finch, Albert M.	Jamestown	R	"
Hardy, J. S	Lebanon	R	"
Hall, Stephen A	Advance	R	"
Hurt, George K	Thorntown	R	NR
Heady, W. S	Jamestown	R	L
Hendricks, J. L	Lebanon	R	"
Hamilton, J. A	Advance	E	"
Higgins, Otis C	Lebanon	H	D
Hicks, J. R	Rosston	R	L
Jones, Alfred B	Lebanon	R	"
Jennings, Caswell	White Lick	R	"
Johns, Elmer D	Zionsville	R	D
Little, Perrin B	Whitestown	R	L
Lee, David F	Zionsville	R	"
McGee, Jos. A	Big Springs	PM	"
Metzler, S. N	Lebanon	R	"
Mendenhall, P. M.	Thorntown	NR	"
Noe, R. B	Thorntown	H	"
Owlsley, W. J	Thorntown	R	"
Porter, John R	Lebanon	R	"
Purdy, Jos. C	Terhune	R	"
Reagan, Jesse S	Lebanon	PM	"
Rose, Madison H.	Thorntown	R	"
Rees, H. O	Thorntown	R	"
Shields, Jacob S	Milledgeville	R	"
Schultz, Wm. A	Lebanon	R	"
Sanders, Louis A.	Hazelrigg	R	"
Smith, Carter H	Lebanon	R	"
Shelburne, W. T.	Zionsville	R	D
Sutherlin, J. F	Lebanon	R	"
Schultz, Guy A	Lebanon	R	"
Smith, DeLaskie	Lebanon	R	"
Turner, Thos. S	Lebanon	E	L
Tucker, J. E	Elizaville	PM	"
Taylor, Oscar S	Whitestown	R	"
Umberhime, C. D.	Rees Mill	R	"
VanNuys, M. M	Lebanon	R	D
Walker, David R.	Lebanon	R	L
Williams, W. H	Lebanon	R	NR

Regular, 43; Eclectic, 5; Homeopathic, 4; Physio-Medical, 4; not reported, 1. Total, 57.

Brown County.

Name.	Postoffice.	School.	Basis of License.
Fleener, Jos. N	Needmore	R	10 yrs.
Genolin, John F.	Nashville	R	D
Griffitt, Arnold S.	Nashville	R	"
Moser, James P	Spearsville	R	"
Ralphy, Alfred J	New Bellville	R	D
Ross, John C	Nashville	R	"
Ward, James G	Bean Blossom	R	10 yrs.

Regular, 7. Total, 7.

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Carroll County.

Name.	*Postoffice.*	*School.*	*Basis of License.*
Angell, Charles	Pittsburg	R	D
Angell, Charles E.	Delphi	R	"
Armstrong, F. G.	Camden	R	"
Brown, Nathaniel	Camden	E	10 yrs.
Carney, Calvin E.	Pyrmont	R	D
Carter, Henry	Bringhurst	E	"
Chittick, A. J.	Burlington	R	"
Cochran, Isaac N.	Delphi	R	"
Conway, P. W.	Ockley	R	"
Cook, A. J.	Flora	E	"
Crampton, C. C.	Delphi	R	"
Galbraith, W. H.	Rockfield	R	"
Galloway, W. G.	Carroll	R	"
Johnson, John M.	Burlington	PM	"
Kidd, W. J.	Burlington	E	"
Lyons, F. P.	Flora	R	D
Moffitt, Reuben R.	Rockfield	R	"
McNeal, G. L.	Deer Creek	E	"
Nye, A. F.	Deer Creek	R	"
Perdue, C. R.	Burrows	R	"
Peter, E. L.	Flora	R	"
Robinson, F. H.	Delphi	H	"
Scholl, C. E.	Camden	R	"
Sharrer, W. F.	Delphi	R	"
Shultz, J. J.	Delphi	E	"
Snyder, B. F.	Camden	R	NR
Tidrick, Ruskin O.	Bringhurst	R	"
Tidrick, Reuben R.	Bringhurst	R	NR
Trobaugh, Wm. A.	Cutler	R	D
Walker, Edward	Delphi	E	"

Regular, 21; Eclectic, 7; Homeopathic, 1; Physio-Medical, 1. Total, 30.

Cass County.

Name.	*Postoffice.*	*School.*	*Basis of License.*
Allen, J. H.	Logansport	H	D
Amy, Jennie R.	Logansport	NR	"
Barnfield, J. H.	Logansport	R	"
Bell, Wm. H.	Logansport	R	"
Baker, Ira J.	Logansport	NR	10 yrs.
Ballard, J. W.	Logansport	R	D
Bradfield, B. D.	Logansport	R	"
Banta, H. J.	Logansport	R	"
Busjahn, F. A.	Logansport	R	"
Burton, J. J.	Lucerne	E	"
Cady, N. W.	Logansport	R	"
Carpenter, ——	Walton	R	"
Coleman, Asa	Logansport	R	"
Dutchers, C. P.	Walton	R	"
Downey, J. A.	Logansport	E	"
Engler, Owen	Walton	R	"
Eckert, D. H.	Luse's	E	10 yrs.
Flynn, W. R.	Logansport	R	D
Fouts, David M.	Royal Center	NR	10 yrs.
Gray, A. J.	Y'ng America	R	D
Gilbert, J. C.	Logansport	R	"
Graves, Arthur E.	New Waverly	R	"
Hattery, B. D.	Logansport	R	"
Hermann, A. J.	Logansport	R	"
Hermann, F. J.	Logansport	R	"
Hessler, Robt.	Logansport	R	"
Hunt, May H.	Logansport	R	"
Hallahan, Jos.	Logansport	R	"
Hill, H. B.	Logansport	R	"
Halloway, W. O.	Logansport	R	"
Hatch, E. M.	Logansport	H	"
Hopper, Geo. H.	Logansport	H	"
Hetherington, J. P.	Logansport	E	"
Jordan, M. A.	Logansport	E	"
Kistler, F. M.	Royal Center	R	"
Kane, F. C.	Logansport	R	D
Loop, Z. V.	Galveston	R	"
LaRose, N. J.	Lucerne	E	"
Little, J. A.	Logansport	R	"
Lybrook, W. E.	Y'ng America	R	"
Milligan, J. W.	Logansport	R	"
Millian, David	Royal Center	E	"
Miller, Louis C.	Twelve Mile	R	"
Miller, H. H.	Galveston	R	"
Mayfield, M.	Royal Center	R	"
Miller, Geo. D.	Logansport	R	"
McCulley, C. H.	Logansport	E	"
Neff, J. N.	Logansport	R	"
Neff, J. L.	Walton	R	"
O'Leary, F. T.	Logansport	R	"
Powell, J. Z.	Logansport	R	"
Powell, D. C.	Logansport	R	"
Quick, L. L.	New Waverly	R	"
Quick, R. H.	New Waverly	R	"
Rogers, J. G.	Logansport	R	"
Ruhsam, Jos.	Logansport	R	"
Shultz, J. H.	Logansport	E	"
Smith, J. S.	Logansport	R	"
Stevens, B. C.	Logansport	R	"
Shultz, J. B.	Logansport	E	"
Sterrett, J. E.	Logansport	R	"
Stewart, M. B.	Logansport	H	"
Snyder, E. D.	Onward	R	"
Stewart, J. W.	Logansport	R	"
Smith, C. B.	Logansport	R	"
Streaker, L. H.	Logansport	R	"
Smith, J. S.	Galveston	R	"
Tucker, A. W.	Logansport	R	"
Thomas, C. L.	Logansport	R	"
Zenninger, H. A.	Lucerne	NR	"

Regular, 52; Eclectic, 10; Homeopathic, 4; not reported, 4. Total, 70.

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Clark County.

Name.	*Postoffice.*	*School.*	*Basis of License.*
Adair, S. L	N.Washington	R	NR
Allhands, D. S	N.Washington	R	"
Baldwin, J. H	Jeffersonville	H	"
Bottorff, C. M	Charlestown	R	"
Bruner, E. W	Jeffersonville	R	"
Carr, F. M	Oregon	R	"
Coombs, D. H	Charlestown	R	"
Crum, C. C	Jeffersonville	R	"
Duerson, W. T	Bethlehem	R	"
Elrod, E. L	Henryville	R	"
Field, D. L	Jeffersonville	R	"
Flynn, E. W	Jeffersonville	R	"
Gaines, J. W	Jeffersonville	R	"
Graham. O. P	Jeffersonville	R	"
Griggs, O. B	Charlestown	R	"
Hancock, C. F. C	Jeffersonville	R	"
Hauss, Q. R	Sellersburg	E	"
Hazard, S. D	Prather	R	"
Hearn, H. O	Marysville	R	"
Jackson, Sarah C	Jeffersonville	H	"
Jones, C	Charlestown	R	"
Lampton, G. W	Jeffersonville	R	"
Leech, W. J	Sellersburg	R	"
Lewis, B. L	Utica	E	"
Loomis, J	Jeffersonville	H	NR
McClure, S. C	Jeffersonville	R	"
McClure, C B	Jeffersonville	R	"
Meloy, J M	Sellersburg	R	"
Meloy, C	Otisco	R	"
Murdoch, John	Muddy Fork	R	"
Nickels, J. M	Sellersburg	R	"
Peyton, D. C	Jeffersonville	R	"
Prall, Ezra	Henryville	R	"
Reynolds, J. N	Memphis	R	"
Ruddell, I. N	Jeffersonville	R	"
Scott, D. V	Borden	R	"
Secoy, S. H	Jeffersonville	H	"
Sharp, H. C	Jeffersonville	R	"
Sheets, W. H	Jeffersonville	R	"
Stalker, B. F	Borden	R	"
Stalker, J. B	Borden	R	"
Stockwell, J. S	Charlestown	R	"
Taggart, R. S	N.Washington	R	"
Taggart, J. F	Solon	R	"
Walker, Jas. H	Henryville	R	"
Work, W. F	Charlestown	NC	"
Wilcox, H. E	Memphis	R	"
Zuerner, Joseph	Jeffersonville	R	"

Regular, 41; Eclectic, 2; Homeopathic, 4; not reported, 1. Total, 48.

Clay County.

Bartholomew, N.B.	Poland	R	NR
Black, Silas D	Brazil	R	"
Carson, John H	Brazil	R	D
Chamberlain, W.L.	Poland	R	NR
Collins, Chas. B	Clay City	R	D
Cooper, John W	Center Point	R	"
Cushman, D. W	Cloverland	R	"
Dilley, F. C	Brazil	R	"
Elliott, T. A	Poland	R	"
Finch, Gilbert R	Center Point	R	"
Finley, Geo. W	Brazil	R	"
Freed, Martin A	Clay City	R	"
Gantz, Richard	Saline City	R	NR
Gastineau, Henry	Howesville	R	"
Gifford, Joseph C	Brazil	R	"
Gifford, W. H	Brazil	R	D
Glasgo, T. A	Brazil	R	NR
Greenleaf, G. S	Brazil	R	D
Griffith, Lewis C	Cory	R	NR
Hale, Levi A	Martz P. O	R	"
Hawkins, Robt. W.	Brazil	R	D
Hirst, Luther S	Brazil	R	"
James, Oliver	Cory	R	NR
Jones, J. H	Bowling Green	E	D
Lewis, Geo. F	Knightsville	R	"
McCullough, F. B.	Brazil	R	NR
Modesitt, J. A	Clay City	R	"
Moss, James K	Ashboro	R	"
Nall. A. H	Hoosierville	R	"
Nussell, Fred'k	Brazil	R	D
Oliver, J. B	Brazil	R	NR
Orr, William H	Harmony	R	D
Pell, G. Milton	Carbon	R	"
Richmond, W. B	Brazil	R	"
Roland, Wm. C	Brazil	R	"
Smith, Jacob F	Brazil	R	"
Sourwine, John D.	Brazil	R	"
Spelbring, B. F	Bowling Green	E	NR
Swinehart, M. H	Ashersville	R	"
Thornton, F. G	Knightsville	R	D
Tulley, A. F	Brazil	R	NR
Vandivier, H. R	Clay City	R	D
Vanhorn, J. R	Clay City	E	"
Veach, Patrick H.	Staunton	R	"
Williams, John H.	Bowling Green	R	NR
Williams, L. L	Brazil	R	D
Witty, B. W. F	Perth	R	NR
Wolfe, C. H	Clay City	R	"
Young, M. H	Harmony	R	D

Regular, 46; Eclectic, 3. Total, 49.

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Clinton County.

Name.	Postoffice.	School.	Basis of License.
Abston, J. M	Sedalia	R	D
Allen, S. V	Pickards	NR	"
Andrews, James	Edna Mills	H	"
Bergen, E. D	Frankfort	H	"
Bonham, D. M	Mulberry	NR	"
Bowers, B. E	Kirklin	R	"
Bowers, V'lentine	Kirklin	R	"
Breaks, L. Z	Frankfort	R	"
Brown, A. L	Mulberry	R	"
Brown, G. W	Frankfort	R	"
Burns, J. W	Frankfort	E	"
Canfield, M. S	Frankfort	E	"
Carson, J. C	Frankfort	R	"
Chittick, Chas	Frankfort	R	"
Coble, A. H	Frankfort	R	"
Coon, H. J	Colfax	R	"
Cooper, W. T	Scircleville	R	"
Cripe, D. E	Hillisburg	H	"
Curtiss, W. H	Frankfort	R	"
Douglass, Samuel	Frankfort	R	10 yrs.
Douglass, I. W	Michigant'wn	R	D
Doyal, R. N	Frankfort	R	"
Earhart, I. S	Mulberry	R	"
Edmonds, O. W	Frankfort	R	"
Elliott, J. W	Sedalia	R	"
Ewing, Leander	Colfax	R	"
Fernald, W. J	Frankfort	R	"
Fisher, S. B	Rossville	E	10 yrs.
Fisher, J. J	Rossville	NR	D
Hammersley, W. L.	Frankfort	R	"
Hatfield, J. F	Moran	R	"
Hill, Clarence	Frankfort	R	"
Holmes, H. D	Scircleville	R	10 yrs.
Holmes, T. F	Pickard	R	"
Hornaday, W. H	Forest	R	D
Jones, F. C	Frankfort	R	"
Kessler, G. B	Kirklin	R	"
Koons, M. T	Mulberry	R	D
Lambert, I. C	Colfax	R	"
Martin, M. L	Forest	R	10 yrs.
McDonald, T. G	Frankfort	R	D
McGuire, W. H	Frankfort	E	"
McMurray, J. S	Frankfort	R	"
Milburn, R. C	Colfax	R	10 yrs.
Milburn, J. E	Colfax	R	"
Moore, A. V	Michigant'wn	R	D
Morrison, O. A. J.	Middlefork	R	"
Palmer, R. F	Frankfort	R	"
Parker, A. P	Kirklin	R	"
Powell, T. J	Michigant'wn	R	"
Quick, W. R	Edna Mills	R	"
Reiff, C. W	Frankfort	E	"
Robison, J. E	Geetingsville	R	"
Robison, T. B	Rossville	R	"
Ruddell, Benson	Frankfort	R	"
Sigler, J. N	Geetingsville	R	"
Sims, S. B	Frankfort	R	"
Shreve, Franklin	Frankfort	R	"
Speitel, H. B	Frankfort	E	10 yrs.
Squier, E. A	Frankfort	E	D
Suhre, E. F	Forest	R	"
Tharp, Levi	Boyleston	R	10 yrs.
Tidrick, R. O	Michigant'wn	R	D
Trach, J. M	Frankfort	R	"
Umberline, C. D	Reese Mill	R	"
Wagner, A. L	Hillisburg	R	"
Webster, J. T	Colfax	H	"
Wells, I. E	Kirklin	R	"
Wilson, A. M	Frankfort	R	10 yrs.
Wise, J. B	Frankfort	H	D
Wisehart, W. H.	Colfax	R	"
Young, M. V	Frankfort	R	"
Yundt, A. M	Mulberry	R	"
Zinn, C. A	Michigant'wn	R	"

Regular, 59; Eclectic, 7; Homeopathic, 5; not reported, 3. Total, 74.

Crawford County.

Abell, G. H	Sulphur	R	10 yrs.
Baylor, G. W	Milltown	R	D
Bushaw, B. E	Marengo	R	10 yrs.
Davis, D. F	English	R	D
Fetzer, John E	Marengo	R	"
Gobbell, F. R	English	R	"
Hazelwood, F. W	English	R	"
Hazelwood, G. R.	English	R	"
Hopper, J. H	Milltown	R	"
King, N. W	Taswell	R	10 yrs.
Land, Geo. W	Grantsburg	R	"
Luckett, E. R	Marengo	R	D
Luckett, C. D	English	R	"
Merrilees, W. M	Leavenworth	H	10 yrs.
Saunders, J. M	Taswell	R	"
Setser, H. H	Leavenworth	R	D
Walls, John W	Eckerty	R	"
Walters, S. E	Marengo	R	"

Regular, 17; Homeopathic, 1. Total, 18.

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Daviess County.

Name.	*Postoffice.*	*School.*	*Basis of License.*
Anderson, J. W	Cornettsville	R	D
Carter, D. R	Epsom	R	L
Clark, J. W	Washington	E	D
Culmar, S. O	Odon	R	NR
Culmar, G. F	Odon	R	"
Deffendall, W. B	Washington	H	NR
DeMott, Jerome	Odon	R	D
Elrod, Stephen B	Raglesville	R	"
Evans, W. L	Loogootee	R	NR
Faith, A. H	Washington	R	D
Fitzgibbon, John	Washington	R	NR
Fulkerson, C. D	Raglesville	R	D
Gers, Henry	Washington	R	"
Gibson, Rebecca	Washington	Midwife.	
Goshorn, N. J	Plainville	R	D
Hattery, A. H	Raglesville	R	"
Hedrick, Wm. H.	Odon	H	NR
Hedrick, John T	Alfordsville	H	NR
Heir, Henry	Washington	R	D
Holder, Union H	Washington	R	NR
Horrall, Wm. A	Washington	R	"
Killion, John N	Cornettsville	E	"
Knapp, A. B	Washington	R	D
Lane, A. K	Odon	R	NR
McCowan C. C	Washington	R	D
McGauhy, A. J	Washington	R	D
McKittrick, O. H	Plainville	R	"
McPherson, S. L	Montgomery	R	"
May, Vance	Cornettsville	R	"
Myers, Wm. H	Plainville	R	"
Millis, E. D	Plainville	R	"
Moore, C. C	Washington	R	"
Moore, J. L	Washington	R	NR
Parks, J. F	Cumback	R	D
Parr, G. L	Washington	R	"
Pickel, John M	Plainville	R	NR
Porter, McGuire	Elnora	E	D
Ragsdale, M. H	Glendale	E	NR
Rankin, T. B	Odon	R	"
Rowland; Calvin	Alfordsville	R	D
Scudder, C. P	Washington	R	"
Smoot, D. B	Glendale	R	"
Tolliver, M. P	Elnora	R	"
Tolliver, Wm. J	Elnora	R	"
Trainor, C. E	Montgomery	R	"
Williford, Wm. C.	Washington	R	"
Williford, G. W	Washington	R	"
Winton, C. F	Washington	R	"
Yenne, Chas. H	Washington	R	"
Young, Chas. C	Elnora	E	"

Regular, 41; Eclectic, 5; Homeopathic, 3; midwife, 1. Total, 50.

Dearborn County.

Barclay, W. H	Farm's Retreat	R	N R
Bond, R. C	Aurora	R	"
Bond, M. L	Aurora	R	"
Bowers, A. J	Moores Hill	R	"
Collins, S. H	Lawrenceburg	R	"
Daughters, A. P	Moores Hill	R	"
Duncan, Wm. F	Kyle	R	"
Dwyer, H. H	Lawrenceburg	H	"
Emmert, E. J	Lawrenceburg	R	"
Fagaly, A. T	Lawrenceburg	R	"
Henry, Wm. C	Aurora	R	"
House, John W	Lawrenceburg	R	"
Jaquith, O. S	Lawrenceburg	R	"
Ketcham, Chas. L.	New Alsace	R	"
Lamb, J. F	Moores Hill	N R	"
Lazenby, J. R	Guilford	R	"
Libbert, E. J	Aurora	R	"
Liddle, John R	Bright	R	"
Miller, A. G	Dillsboro	E	N R
Mueller, Frank M.	Lawrenceburg	R	"
Robinson, J. M	Moores Hill	N R	"
Sale, F. H	Aurora	R	"
Sale, F. H	Dillsboro	R	"
Sale, J. H	Dillsboro	R	"
Schooley, W. A	Guilford	R	"
Scott, Benton H	W. Harrison	R	"
Smith, G. F	Weisburg	R	"
Smith, Edwin	Aurora	H	"
Sutton, H. H	Aurora	R	"
Swales, W. H	Logan	R	"
Swales, H. W	Logan	R	"
Walters, C. A	Lawrenceburg	R	"
Wilson, N. H	Guionsville	R	"
Wiltshire, K. A	Moores Hill	E	
Wolf, George	Manchester	H	

Regular, 29; Eclectic, 2; Homeopathic, 3; not reported, 1. Total, 35.

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Decatur County.

Name.	*Postoffice.*	*School.*	*Basis of License.*
Alexander, J. H	Greensburg	R	D
Ballard, D. J	St. Paul	R	"
Beal, Chas. M	Clarksburg	R	"
Bobbitt, John H	Greensburg	R	"
Boyer, J. H	Sardinia	R	"
Bracken, Wm	Greensburg	R	NR
Bunker, L. C	Greensburg	E	D
Burroughs, J. P	Westport	R	NR
Clark, Thos. J	Letts Corners	E	"
Covert, C. A	Greensburg	R	D
Crawford, Geo. S	Clifty	R	"
Crisler, Jos. B	Westport	R	NR
Crowell, E. B	Greensburg	E	D
Dailey, F. M	Millhausen	R	"
Gephart, R T	Burney	R	"
Grover, C. B	Greensburg	PM	NR
Gullefor, T. B	Greensburg	H	D
Hause, Wm	Westport	E	"
Hitt, J. Y	Greensburg	R	"
Hitt, S. B	Greensburg	R	"
Howard, J W	St. Paul	R	NR
Howard, C. L	St. Paul	R	D
Howard, F. M	St Paul	R	"
Hyde, Loren A	Greensburg	R	"
Jerman, L. W. D	New Point	R	NR
Johnson, H	New Point	R	"
Johnson, Thos	Clarksburg	R	NR
Kercheval, C. F	Greensburg	R	D
Miller, T. E. F	Westport	H	NR
Norten, W. J	Alert	R	D
Oldham, Harry N	Waynesburg	R	NR
Parker, John W	Adams	E	"
Pleak, Ezra H	Waynesburg	R	"
Reilly, J. H. S	Sardinia	R	D
Riley, E. T	Greensburg	R	"
Robertson, John	Westport	R	NR
Sanders, Ira N	Adams	R	D
Schofield, J. V	Greensburg	R	"
Smith, J. L	Clarksburg	R	NR
Tarkington, J. A	Greensburg	R	D
Thomas, R. M	Greensburg	R	"
Thomas, Wm E	Clarksburg	R	"
Tremain, M. A	Clifty	R	"
Vest, M. C	Forest Hill	R	NR
Weaver, D. W	Greensburg	H	D
Webb, W. H	Adams	R	"
Welch, J. A	Letts Corner	R	"
Welch, Oliver F	Westport	R	NR
White, Ben S	Greensburg	R	D
Wood, J. M	Greensburg	R	"
Wooden, W. H	Greensburg	R	"
Wright, S. V	Greensburg	R	"

Regular, 43; Eclectic, 5; Homeopathic, 3; Physio-Medical, 1. Total, 52.

Dekalb County.

Baxter, John C	Auburn	R	D
Bennett, Jas. B	Butler	R	"
Bevier, Wm	Waterloo	E	D
Bevier, Frank	Waterloo	NR	10 yrs.
Bowman, H. W	St. Joe	R	D
Broughton, Frank	Waterloo	R	"
Browand, N. C	Garrett	R	"
Brunson, V. C	Newville	R	"
Buchtel, I. O	Auburn	H	"
Carey, W. W	Spencerville	R	"
Carpenter, T. J	Waterloo	R	"
Casebeer, J. P	Auburn	R	"
Clevenger, J. H	Garrett	R	"
Darby, A. B	Waterloo	E	"
Fanning, Frank	Butler	R	"
Fanning, Fred W	Butler	R	"
Farrington, A. S	Waterloo	NR	10 yrs.
Hines, F. M	Auburn	R	D
Holloway, Jos. H	Butler	E	"
Matheny, T. G	Auburn	R	"
Nusbaum, W. H	Auburn	R	"
Phillips, A. F	Corunna	R	"
Riley, Jas. L	Artic	R	"
Rock, Geo	Auburn	NR	NR
Rudolph, O. F	Corunna	E	D
Sebring, D. A	Auburn	NR	10 yrs.
Shiffer, B. S	St. Joe	R	D
Showalter, J. E	Waterloo	R	"
Shumaker, W. F	Butler	R	"
Stewart, C. S	Garrett	R	"
Strouse, J. P	Garrett	R	"
Swarts, V. M. V	Auburn	R	"
Swarts, D. J	Auburn	R	"
Thompson, J. F	Garrett	R	"

Regular, 25; Eclectic, 4; Homeopathic, 1; not reported, 4. Total, 34.

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Delaware County.

Name.	*Postoffice.*	*School.*	*Basis of License.*
Ames, Geo F.	Eaton	R	D
Atkinson, Jas. M.	Eaton	R	"
Bacon, C. L.	Muncie	H	"
Baird, J. V.	Albany	E	"
Baird, Mary A.	Albany	E	"
Ball, L. L.	Muncie	R	"
Baker, H. H.	Muncie	H	"
Barnard, P. C.	Oakville	R	"
Beck, I. E.	Muncie	PM	"
Bell, J. N	N. Burlington	R	"
Bland, Mary C.	Muncie	PM	"
Bowles, T. J.	Muncie	R	"
Boyden, W. J.	Muncie	R	"
Bragg, Wm. N	Albany	R	"
Brandon, W. S.	Daleville	R	"
Bucklin, G. W.	Muncie	R	"
Bunch, R. A.	Muncie	E	"
Burcham, H. C.	Albany	R	"
Cecil, A. A	Muncie	R	"
Cooper, A. M.	Muncie	R	"
Cowing, Hugh A.	Muncie	R	"
Coffman, John S.	Muncie	E	"
Dodds, T. C	Shideler	E	"
Dowell, John A.	Albany	E	"
Downing, J. R	Yorktown	R	"
Downing, J. F.	Yorktown	R	"
Dunn, Wm. H.	Gaston	R	"
Eastes, Wm. T.	Gaston	R	"
Ellis, E. W.	Muncie	PM	"
Fallis, A. L	Gaston	PM	"
Fowler, Elmer E.	Albany	R	"
Fair, H D.	Muncie	E	"
Frazer, Chas	Muncie	R	"
Good, A. H	Selma	R	10 yrs.
Green, Geo. R.	Muncie	R	D
Griffin, Anna M. L	Muncie	R	"
Griffith, E T	Muncie	R	"
Griffith, J. B	Daleville	R	"
Hastings, A. H	Muncie	H	"
Hayden, John H.	Stout	PM	"
Hill, Frank E.	Muncie	R	"
Halton, John	Muncie	R	"
Houseman, Kate	Muncie	E	"
Jackson, F. B.	Muncie	R	"
Jump, S. G	Selma	R	"
Julian, Jas. F.	Gaston	E	"
Kemper, G. W. H.	Muncie	R	"
Kemper, A. T.	Muncie	R	"
Kilgore, F. T.	Yorktown	R	"
Larimore, Jos. D	Shideler	R	"
Loar, L. T.	Muncie	R	"
Mann, E B	Muncie	R	"
Mansfield, T. J.	Royerton	R	"
Marshall, R.	Cowan	R	"
Mask John R	Muncie	R	"
Martin, J. S.	Muncie	H	"
McCrillers, C C.	Muncie	R	10 yrs.
Miller, C. E.	Muncie	R	D
Mitchell, Harvey	Muncie	R	10 yrs.
Mitchell, W. P.	Gaston	R	D
Mock, A. R.	Muncie	V	"
Morris, O. W	Reed Stat'n	PM	"
Munsey, D. O	Gaston	R	"
Murray, A. L	Eaton	R	10 yrs.
Murray, A. R.	Albany	R	D
Owens, O. W	Muncie	H	
Painter, L H.	Cowan	PM	"
Payton, Lewis	Muncie	PM	"
Pielemeier, E. F.	Muncie	R	"
Poland, V. G.	Muncie	R	"
Polk, E. E.	Muncie	PM	"
Powers, V. G.	Albany	R	"
Puckett, E. J.	Muncie	R	"
Quick, J. C	Muncie	PM	"
Quick, J. M.	Muncie	PM	"
Reasoner, O. I	Muncie	R	"
Rice, W. G	Muncie	R	"
Reid, S. M.	Muncie	R	"
Rickard, Wm. A.	Muncie	E	"
Ross, J. C	Muncie	E	10 yrs.
Ross, N. B.	Muncie	E	D
Sommer, M. B. C.	Muncie	O	"
Schaub, Daniel	Muncie	V	"
Sommer, Chas	Muncie	O	"
Searcy, Geo. H	Muncie	R	"
Stanley, J. M	Eaton	R	"
Shields, E. A.	Muncie	R	"
Shafer O. B.	Muncie	R	"
Shively, A. H.	Yorktown	R	"
Shively, D. M.	Yorktown	R	"
Stover, Chas. J.	Eaton	R	"
Shoemaker, D. M.	Muncie	E	"
Shoemaker, R. C.	Muncie	E	"
Simmons, Wm. D.	Desoto	E	"
Smith, Chas. W.	Selma	R	"
Snodgrass, N. E.	Cammack	PM	"
Snodgrass, B. D.	Cammack	PM	"
Spickerman, H. R.	Muncie	R	"
Spurgeon, Wm. A	Muncie	PM	"
Stick, Jesse	Albany	E	"
Summers, H. C.	Daleville	R	10 yrs.
Surber, A. C.	Muncie	R	D
Trent, Isaac N	Muncie	R	"
Tuttle, Jno. R.	Wheeling	R	10 yrs.
Tindal, Edward F.	Muncie	R	D
Vanderburg, J. M.	Albany	E	D
Vinton, A. E.	Muncie	R	"
Whitney, E. A.	Muncie	H	"
Whitney, W. D	Muncie	R	"
Winans, H. M.	Muncie	R	"
Wadsworth, W. W	Muncie	R	"

Regular, 70; Eclectic, 17; Homeopathic, 6; Osteopathic, 2; Physio-Medical, 14; Vitopathic, 2. Total, 111.

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Dubois County.

Name.	*Postoffice.*	*School.*	*Basis of License.*
Bigham, O. A	St. Anthony	R	D
Brannock, B. B	Jasper	R	"
Coble, P. L	Hillham	R	10 yrs.
Courtney, Thos	Thales	R	"
Gengelbach, E. E.	Huntingburg	Ec	D
Grim, Geo. B	Portersville	R	"
Hamilton, J. S	Kyana	Ec	10 yrs.
Hermani, Wm A.	Altoga	H	"
Johnson, L. B. W.	Ireland	R	D
Kelso, Ulysses G.	Dubois	R	"
Kellams, S. W	Birdseye	Ec	10 yrs.
Kempf, E. J	Jasper	R	D
Kimes, D. W	Birdseye	B	10 yrs.
Klein, H. P	Huntingburg	Ec	D
Knapp, V	Ferdinand	R	"
Line, Wm. A	Hillham	R	"
Line, Wm. M	Dubois	R	"
Lukemeyer, E. G.	Huntingburg	R	D
Lukemeyer, L. C.	Haysville	R	"
McMahan, W. R.	Huntingburg	R	"
Michaels, J. F	Jasper	R	"
Ramsbrook, C. R.	Huntingburg	R	"
Rust, Wm. F	Holland	R	"
Salb, John P	Jasper	R	"
Schellhase, F. W.	Celestine	H	10 yrs.
Schwartz, C. W	Huntingburg	R	D
Simmons, C. M	Schnellville	R	"
Smith, J. H	Birdseye	R	"
Stork, H. W	Holland	R	"
Traylor, G. W	Ireland	NR	NR
Whittinghill, B. F.	Hillham	R	10 yrs.
Wollenmann, A. G	Ferdinand	R	D
Williams, G. P	Huntingburg	R	"

Cook, Mary E	Ireland	Midwife
Eifert, Eva	Jasper	Midwife
Gutgsell, Antoinetta	Jasper	Midwife
Gabel, Margaret	Huntingburg	Midwife
Gutgsell, Theresia	Jasper	Midwife
Kretz, A. M	Ferdinand	Midwife
Kuper, Elizabeth	Jasper	Midwife
Minor, Mary	Ellsworth	Midwife
Mordhoff, Theresia	Celestine	Midwife
Schuman, Margaret	St. Henry	Midwife

Regular, 25; Eclectic, 4; Homeopathic, 2; Botanic, 1; midwives, 10. Total, 42.

Elkhart County.

Ash, E. E	Goshen	R	D
Ash, W. N	Goshen	R	"
Aitken, F. M	Bristol	R	"
Bowser, T. M	Goshen	R	"
Becknell, I. T	Goshen	R	"
Bower, C. C	Elkhart	R	"
Beeman, W. T	Elkhart	R	"
Benham, F. A	Elkhart	H	10 yrs.
Bowman, Wm. E	Elkhart	R	D
Baumgartn'r, A. T.	Elkhart	R	"
Baker, D. W	Benton	R	"
Boyer, D. K	Wakarusa	R	L
Barwick, D. O	Wakarusa	E	D
Barbour, J. E	Bristol	H	"
Cook, J. A	Goshen	R	"
Casper, A. J	Elkhart	R	"
Collins, Mertie	Elkhart	R	"
Dreese, C. L	Goshen	R	"
Devoe, A. M. F	Elkhart	R	"
Defrees, H. T	Nappanee	R	"
Dutrow, C. E	Bristol	R	"
Eckelman, M. M.	Elkhart	R	"
Eckelman, F. C	Elkhart	R	"
Eisenbeiss, C. M	Elkhart	R	"
Eisenbeis, Sam'l	New Paris	R	"
Fleming, T. C	Elkhart	R	D
Fisher, A. L	Elkhart	NR	NP
Frink, C. W	Elkhart	R	D
Farver, M. A	Middlebury	R	"
Goodrich, C. D	Elkhart	NR	NP
Gruner, G. G	Vistula	R	D
Herring, Fred	Goshen	E	10 yrs.
Hoover, John M	Goshen	R	D
Hoover, Josep'ine	Goshen	R	"
Hall, T. R	Elkhart	R	"
Haggerty, R. L	Elkhart	R	"
Hoopingarner, G W	Elkhart	R	"
Hauenstein, G. W.	Elkhart	R	"
Hani, Wm. F	Elkhart	R	"
Hawkins, E. P	Elkhart	NR	NR
Holderman, E	Wakarusa	R	D
Ihrig, F. M	Goshen	E	"
Irwin, A. T	Goshen	R	"
Inks, John A	Nappance	R	"
Jackson, A. C	Goshen	R	"
Jennings, W. T	Millersburg	R	"
Kreider, Wm	Goshen	H	"
Kreider, M. K	Goshen	H	"
Kauffman, A. G	Goshen	E	"
Kyler, Wm. B	Benton	NR	10 yrs.

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Elkhart County—Continued.

Name.	Postoffice.	School.	Basis of License.
Knepple, Wm. H.	Wakarusa	R	D
Miller, D. L	Goshen	R	"
Merrill, C. W	Goshen	R	"
Mumaw, H A	Elkhart	H	"
Moyer, F. K	Elkhart	R	"
Maston, Chas	Benton	PM	10 yrs.
Myers, J. W	Middlebury	E	"
Mathews, Jas	New Paris	R	D
Niman, C. H	Elkhart	R	"
Peck, M. Eva	Goshen	R	"
Price, W. A	Nappanee	R	"
Page, W. B	Middlebury	H	"
Sparklin, C. C	Goshen	R	"
Short, I. W	Elkhart	R	"
Spohn, G. W	Elkhart	R	"
Shoemaker, G. L.	Nappanee	H	D
Snapp, J. A	Goshen	R	"
Sensenich, A. A	Wakarusa	R	"
Stuckman, E. D	New Paris	R	"
Thomas, W. H	Elkhart	H	10 yrs.
Turner, Porter	Elkhart	H	D
Teters, B. J	Middlebury	R	"
Wickham, W. W	Goshen	E	10 yrs.
Whitmer, B. F	Goshen	R	D
Whippy, W. A	Goshen	H	10 yrs.
Work, J. A	Elkhart	R	D
Waller, W. J	Elkhart	R	"
Wagoner, W. J	Millersburg	R	"
Williams, N. A	Bristol	R	"

Regular, 58; Eclectic, 6; Homeopathic, 10; Physio-Medical, 1; not reported, 4. Total, 79.

Fayette County.

Chitwood, John E.	Connersville	R	D
Chitwood, Joshua	Connersville	R	"
Chitwood, F. A	Connersville	R	10 yrs.
Clark, J. H	Connersville	R	D
Dillman, L. D	Connersville	R	"
Daum, A. W	Connersville	R	"
Derbyshire, E	Connersville	R	"
Druley, E. W	Bentonville	E	"
Dent, W. H	Glenwood	R	"
Ford, T. J	Connersville	R	"
Hamilton, S. N	Connersville	R	"
Heron, Nathan	Connersville	R	10 yrs.
Ludwick, V. D	Connersville	R	D
Lockhart, A. S	Everton	R	"
Logee, H. M	Connersville	H	"
Mountain, J. R	Connersville	R	"
Porter, W. J	Connersville	R	"
Roberts, Elizabeth	Connersvi le	PM	"
Spilman, F. J	Connersville	R	"
Sipe, R. W	Orange	R	"
Tyrrel, A. D	Connersville	R	10 yrs.
VanPelt, Geo. F	Connersville	R	D

Regular, 19; Eclectic, 1; Homeopathic, 1; Physio-Medical, 1. Total, 22.

Floyd County.

Appleman J. S	New Albany	R	D
Ashabranner, J. H	New Albany	E	"
Beard, W. A	Georgetown	R	"
Benst, Bernhard	New Albany	R	"
Bowman, Chas	New Albany	R	"
Burney, W. A	New Albany	R	"
Cannon, G. H	New Albany	R	"
Cook, C. P	New Albany	R	"
Davis, C. P	Galena	R	"
Davis, J. M	Greenville	R	"
Easley, E. P	New Albany	R	"
Erni, G. O	New Albany	H	"
Garey, Dumont	New Albany	R	"
Gaddie, E. R	New Albany	R	"
Funk, A	New Albany	R	"
Harris, R. W	New Albany	R	"
Hart, Douglas	New Albany	R	"
Hauss, A. P	New Albany	E	"
Hazlewood, John	New Albany	R	"
Hollinger, I. C	New Albany	R	"
Huggins, R	New Albany	R	D
Jones, J. H	New Albany	R	"
Lemon, J. H	New Albany	R	10 yrs.
Levy, L. D	New Albany	H	D
McIntyre, C. W	New Albany	R	"
McKamy, Anna	New Albany	R	D
Mitchell, F. A	New Albany	R	"
Neat, T. C	New Albany	R	"
Rice, C. W	New Albany	E	"
Rogers, S. T	New Albany	E	"
Roberts, J. D	New Albany	R	"
Rutherford, R. S	Galena	R	"
Severinghaus, E. A	New Albany	H	"
Sigmon, E. L	New Albany	R	"
Spark, M. W	New Albany	R	"
Starr, W. L	New Albany	R	"
Stone, Solomon	New Albany	R	NR
Taggart, W. J	Georgetown	R	D
Tebault, W. P	New Albany	R	"
Vance, W. O	New Albany	R	NR

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Floyd County—Continued.

Name.	Postoffice.	School.	Basis of License.
Walker, J. H.	Floyd Knob	R	D
Weathers, J. F.	New Albany	R	"
Weber, Louis	New Albany	R	"
Wilcox, F. H.	New Albany	R	"
Wilcox, S. C.	New Albany	R	"
Williams, W. R.	Greenville	R	D
Winstanley, W. C.	New Albany	R	"
Wolf, J. H.	New Albany	R	"
Wray, J. T.	New Albany	R	"

Regular, 42; Eclectic, 4; Homeopathic, 3. Total, 49.

Fountain County.

Name.	Postoffice.	School.	Basis of License.
Armstrong, L. P.	Newtown	R	L
Buckner, J. P.	Covington	R	"
Burlington, J. C.	Attica	E	"
Burlingt n, J. R.	Attica	R	"
Case, M. F	Attica	R	"
Claypool, R. W	Newtown	R	"
Coggins, C. M.	Covington	R	"
Colvin, C. M	Attica	R	"
Dowden, J, W	Yeddo	E	"
Edison, C. C	Veedersburg	E	"
Faulkner, A. S	Hillsboro	R	"
Fine, E. M	Veedersburg	R	"
Finney, C. J	Attica	R	"
Hayes, Geo. C.	Hillsboro	R	"
Hoag, Jas. H.	Veedersburg	H	"
Hesler, Robt. F.	Kingman	R	"
Henderson, J. T	Covington	R	"
Holly, A. C.	Attica	H	"
Keeler, J. C.	Silverwood	R	"
McNeil, Chas. A	Veedersburg	E	D
Mendenhall, E. W.	Kingman	R	"
Mock, J. W	Covington	R	L
Myers, C. L	Covington	R	L
Orahood, J. D.	Coal Creek	R	"
Parker, John	Mellott	R	"
Pearlman, Sam'l	Stone Bluff	R	D
Rice, E. S	Wallace	E	L
Rice, J. T	Attica	R	"
Ross, W. H	Veedersburg	R	"
Rowland, Geo.	Covington	R	"
Rupert, A. M.	Attica	R	"
Ramsey, G. P.	Newtown	NR	"
Shoaf, F. A.	Veedersburg	R	L
Smail, Geo. W.	Veedersburg	R	"
Songer, Frank	Hillsboro	R	"
Sparks, J. F.	Yeddo	R	"
Stackhouse, F	Silverwood	NC	"
Stout, W. H.	Covington	R	L
Towey, J. T	Covington	R	"
Williamson, W. N.	Kingman	R	"
Williamson, A. A.	Kingman	R	"
Williamson, A. A.	Wallace	R	"
Zinn, Geo.	Covington	PM	

Regular, 33; Eclectic, 5; Homeopathic, 2; Physio-Medical, 1; not reported, 2. Total, 43.

Franklin County.

Name.	Postoffice.	School.	Basis of License.
Allen, Irvin O	Metamora	R	NR
Anness, Wm. R.	Bath	E	"
Berry, William H.	Brookville	R	"
Bertenshaw, T. F.	Drewersburg	E	"
Bolden, M. S.	St. Peters	NR	"
Buckingham, G. B.	Brookville	R	"
Carter, Calvin	Brookville	R	"
Coffey, Bert	Laurel	E	"
Forrey, Benj. F.	Bath	R	"
Gurber, Peter	Bloom'g Gve.	R	"
Garigues, I. D	Cedar Grove	R	"
Gifford, Sam'l A.	Laurel	R	"
Gregory, Henry	Laurel	R	"
Lewis, Robert F	Mt. Carmel	R	L
Linegar, John M.	Fairfield	R	NR
Maguire, W. W	Metamora	R	"
Mull, Philip L.	Oldenburg	R	NR
Metcalf, Henry P.	Andersonville	R	"
Owens, Robert J.	Cedar Grove	R	"
Patterson, E. L.	Brookville	R	"
Prall, Ezra	Oldenburg	R	"
Quick, John H	Brookville	R	"
Seal, Frank E	Mt. Carmel	E	"
Simmons, E	Laurel	E	"
Spillman, F. J	Andersonville	R	"
Schum, Chas	Brookville	R	"
Smith, Andrew J.	Metamora	E	"
Smith, Lulu M.	Metamora	E	"
Squier, Geo. E	Brookville	E	"
West, James F.	Brookville	R	"
Vogt, Wm. A	Oldenburg	R	"

Regular, 22; Eclectic, 8; not reported, 1. Total, 31.

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Fulton County.

Name.	*Postoffice.*	*School.*	*Basis of License.*
Abbott. H. B	Blue Grass	R	L
Armstrong, A	Kewanna	R	D
Armstrong, H. L	Kewanna	R	"
Bitters, Frank P	Rochester	R	"
Brown, Angus	Rochester	H	L
Babcock, Isaac L.	Germany	E	D
Crosby, Wm. S	Rochester	H	D
Clymer, Newton J	Rochester	E	L
Fish, Samuel R	Talma	E	"
Gould, Vernon	Rochester	R	D
Gould, Chas. E	Rochester	R	"
Hossman, Wm. E.	Akron	E	"
Howell, John Q	DeLong	E	L
Hill, William	Rochester	E	D
Heward, W. M	Grass Creek	R	"
Hill, Geo. A	Athens	R	"
Hoffman, Geo. E	Rochester	R	"
Hoot, Prentiss L.	Rochester	E	"
Johnston, A	Akron	R	L
King, Milo O	Rochester	R	D
Loring, Chas. J	Rochester	R	"
Morris, J. M	Fulton	R	L
Meek, Loring C	Tiosa	R	D
Nellens, A. J	Rochester	E	L
Overmyer, B. F	Leiters	R	D
Petry, Franklin	Akron	R	L
Parker, Albert	Leiters	E	"
Rannells, J. N	Rochester	E	D
Rhodes, Eden E	Rochester	R	"
Richardson, John	Fulton	R	L
Shafer, W. S	Rochester	E	D
Scott, John C	Talma	E	"
Terry, P. E	Rochester	R	D
Vance, V. G	Akron	E	L
Washburn, J. M	Kewanna	R	D
Ward, John M	Kewanna	R	"

Regular, 21; Eclectic, 13; Homeopathic, 2. Total, 36.

Gibson County.

Arthur, M. L	Patoka	R	D
Arthur, H. M	Hazleton	R	"
Anderson, R. S	Princeton	R	"
Ballard, John	Haubstadt	R	"
Beresford, G. R	Owensville	R	"
Blair, Franklin	Princeton	R	"
Blair, Wm. W	Princeton	R	"
Brown, Thos. M	Oakland City	R	"
Burlingame, E. G	Oakland City	R	"
Burton, A. R	Princeton	R	"
Burton, Hiram	Somerville	R	10 yrs.
Clark, Jos. H	Princeton	R	D
Carter, N. R	McGary	E	"
Clark, J. I	Owensville	R	10 yrs.
Critchfield, J. S	Princeton	E	D
Emerson, R. W	Owensville	E	"
Ellis, Claud	Princeton	H	"
French, W. W	Fort Branch	R	"
Genung, W R	Fort Branch	R	"
Goodwin. L D	Winszor	R	10 yrs.
Gudgel, J. F	Hazleton	R	D
Hammel, John	Buckskin	R	"
Hansford, W. G	Oakland City	R	"
Higgins, R. G	Princeton	H	"
Hollingswo'h, M. P.	Princeton	R	"
Hopkins, Wm G.	Fort Branch	R	"
Hudson, O. L	Princeton	H	"
Ireland, J. M	Francisco	R	"
Kendle, G. C	Princeton	R	D
Kister, Geo, H	Fort Branch	R	D
Littlepage, G. C	Haubstadt	R	"
Morris, W. F	Fort Branch	R	"
Marchand, V. H	Haubstadt	R	"
Martin, F. M	Loyd	R	10 yrs.
Mason, R. S	Oakland City	R	D
Maxam, F. H	Princeton	R	"
McGowen, J. W	Oakland City	R	"
Mills, Mary	Princeton	H	"
Montgomery, T. J.	Owensville	R	"
Montgomery, M. A	Owensville	R	"
Morris, J. L	Kings	R	"
Mason, G. C	Oakland City	R	"
Null, C. L	Somerville	R	"
Patton, J C	Francisco	R	"
Reaves, D. P	Patoka	R	"
Runcie, J. W	Fort Branch	R	"
Smith, H. H	Oakland City	R	"
Stone, O. M	Oakland City	R	"
Strickland, Geo.	Francisco	R	"
Tarr, John W	Loyd	R	10 yrs.
Thomas. C. M	Haubstadt	R	D
Williams, J. M	Owensville	E	"
Williams, W. T	Fort Branch	E	"
Zeliak, A. L	Haubstadt	R	"
Zeliak, J. E	Haubstadt	R	"
Zimmerman, Jno.	Princeton	R	"

Regular, 47; Eclectic, 5; Homeopathic, 4. Total, 56.

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Grant County.

Name.	*Postoffice.*	*School.*	*Basis of License.*
Adkin, J. C.	Marion	R	L
Alexander, W. P.	Gas City	E	"
Anderson, John T.	Swayzee	R	"
Anderson, Emma	Swayzee	PM	"
Aveline, F. H.	Marion	PM	"
Barnes, Wm. C.	Marion	R	"
Barnes, Robt. A.	Marion	PM	"
Barnes, E. V.	Marion	PM	"
Bartley, R. W.	Marion	E	"
Bell, John W	Marion	R	"
Brown, Karl T.	Fairmount	R	"
Bryan, Lorenzo D.	Marion	R	"
Bobbitt, W. H.	Marion	R	"
Bridge, L. M.	VanBuren	R	"
Brown, Chas N.	Herbst	E	"
Brundige, S. P.	Marion	R	"
Burge, A. D.	Sweetser	E	"
Buroker, J. P.	Mier	E	"
Cameron, V. V.	Marion	R	"
Cartwright, M. L.	Marion	PM	"
Combs, Albert H.	Marion	R	"
Conley, L. H.	Gas City	R	"
Corey, Lewis J.	VanBuren	R	"
Cory, H. W.	Marion	H	"
Cronkhite, C. C.	Marion	R	"
Crumrine, I. S. J.	Landess	R	"
Curry, John F.	Marion	R	"
Dale, Burnham C	Marion	R	"
Daniels, Geo., Jr.	Sweetser	R	"
Daniels, Geo. W.	Sweetser	R	"
Daniels, W. V	Marion	E	"
Davis, Geo. W	Marion	E	"
Davis, O. M.	Nat.Mil.Home	R	NR
Davis, S. H.	Marion	E	L
Dooley, A. J	Marion	R	"
Earl, S. H	Marion	NR	NR
Eckert, Chas. H	Marion	R	L
Eshleman, L. H	Marion	R	"
Fallis, Amos L.	Leach	PM	"
Fankboner, W. A.	Marion	R	"
Fansler, D. N.	Marion	R	"
Fite, C. H	Marion	PM	"
Flynn, Wm	Marion	R	"
Forrest, J. H.	Marion	E	"
Fowler, A. A	Marion	H	"
Francis, W. R.	Marion	R	"
Fraze, Emmet	Gas City	PM	"
Gasaway, T O	Marion	R	"
Goodwin, E. B	Marion	R	NP
Graham, John F.	Marion	R	L
Haines, H. C.	Sims	PM	"
Hamilton, A. A.	Marion	R	"
Harden, Mrs. C. A.	Gas City	PM	"
Haun, Maria	Marion	PM	"
Hawkins, Z. T	Swayzee	E	"
Henley, Alpheus	Fairmount	NC	"
Henley, Glenn	Fairmount	R	"
Hibbard, F. M	Marion	E	L
Hinchman, C. S.	Marion	PM	"
Hockett, C. P.	Jonesboro	E	"
Holliday, D. A.	Fairmount	R	"
Horne, S. S.	Jonesboro	R	"
Hough, Wm. A.	Marion	PM	"
Houser, Jas. A.	Marion	PM	"
Hughes, Wm. L.	Matthews	R	"
James, Chas. S.	Radley	PM	"
Jeffrey, H. S	Upland	R	"
Johnson, J. E.	Marion	R	"
Jones, E. P.	Marion	H	"
Jones, C. R.	Jonesboro	E	"
Keene, D. P.	Marion	E	"
Kersey, Jas. B	Marion	PM	"
Kimbell, A. D	Nat.Mil.Home	R	"
Kimball, G. D.	Marion	R	"
Kimball, T. C.	Marion	R	"
Knight, J. C.	Jonesboro	R	"
Langston, Edgar	Point Isabel	R	"
Lacey, J. D	Mier	R	NR
Little, B. F	Upland	R	L
Lloyd, Alijah W.	Marion	R	"
Lucas, James O.	Marion	NR	NR
Lyon, Thomas	Upland	R	L
McGrew, Wm. H.		E	"
McKay, Jas D	Marion	R	"
McKinney, G. W.	Gas City	R	"
McKinsey, W. M.	Marion	PM	"
McQuown, O. W.	Nat Mil.Home	NR	NR
Matteson, D. E	Marion	R	L
Miller, Harry	Nat.Mil Home	R	"
Mock, J. F.	Marion	R	"
Mock, A. D.	Marion	R	"
Moon, Allen	Point Isabel	PM	"
Moore, S. W.	Marion	R	"
Munsee, Lola	Marion	PM	NR
Newton, C. N.	Marion	PM	L
Overman, C. J	Marion	R	"
Patterson, J W	Fairmount	R	"
Powell, Nettie B.	Marion	R	"
Powell, A. E.	Marion	R	"
Pretlow, C. L.	Fairmount	R	"
Preston, C. M	Marion	E	NR
Priest, Frank A	Marion	H	L
Pugh, John W	Gas City	PM	"
Pullen, A. J.	Fairmount	NR	"
Resoner, Wm. S	Point Isabel	R	"
Reed, John	Marion	B	"
Root, Chas. C	Leach	R	"
Ritter, Jas. K.	Marion	R	"
Scheib, J. P.	Marion	H	"
Seal, I. N	Hackleman	R	"
Seale, Jos. P	Fairmount	R	"
Searight, H. W.	Upland	R	"
Shananhan, A. A.	Jalapa	PM	"
Shipley, John B	Marion	PM	"

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Grant County—Continued.

Name.	*Postoffice.*	*School.*	*Basis of License.*
Shively, M. T.	Marion	R	L
Shreve, Franklin	Marion	R	"
Siddons, J. O.	Marion	R	"
Smith, N	Marion	NR	NR
Snodgrass, D. B.	Marion	PM	L
Snodgrass, Mary J.	Marion	PM	"
Stephens, Anna T.	Marion	PM	"
Stevens, V. C	Gas City	R	"
Stevenson, Geo.	Marion	PM	"
Stoner, Geo. D.	Marion	H	"
Stout, O. L	Upland	R	"
Studley, Jos. W.	Marion	R	"
Sutton, H. A	Marion	PM	"
Thomas, H. A	Marion	PM	"
Thomas, Wm. T	Marion	R	"
Thomas, Elvira R.	Marion	PM	"
Trask, Jos. H	Matthews	R	L
Vance, C. E	Gas City	R	"
Votaw, R. A	Marion	PM	"
Walch, Alice C.	Marion	PM	"
Wall, M. M	Marion	H	"
Warner, Wm	Fairmount	H	"
Webster, Elery C.	Marion	NR	NR
Wharton, W. L.	Matthews	R	"
Whitson, Eli M.	Jonesboro	R	"
Whitson, John S.	Jone-boro	R	"
Williams, Lewis	Marion	R	"
Williams, D. A	Marion	E	"
Williamson, H	Marion	R	"
Williamson, P. E.	Sweetser	R	"
Zimmer, E. G	Upland	R	"

Regular, 81; Eclectic, 17; Homeopathic, 8; Physio-Medical, 32; Botanic, 1; not reported, 6. Total, 145.

Greene County.

Acton, W. G.	Switz City	R	L
Aydelotte, Thos.	Lyons	R	"
Beaty, Wm. H.	Worthington	R	"
Bridwell, L.	Owensberg	R	"
Burk, Wm. H	Scotland	R	"
Cole, W. H	Switz City	R	"
Cook, P. M	Salsberry	R	"
Cravens, W. R	Bloomfield	R	"
Cravens, S. C	Bloomfield	R	"
Cravens, E R	Linton	R	"
Durment, C. R	Newberry	R	"
Foor, J. D	Jasonville	R	"
Gray, Geo. B	Worthington	R	"
Gray, Jno. W	Bloomfield	R	"
Gray, Simeon	Worthington	R	"
Harrah, Jno. M.	Switz City	R	"
Herold, Henry	Switz City	R	"
Hinkle, J. S	Worthington	R	"
Hargan, H. C.	Worthington	R	"
Kessinger, Wm. E.	Scotland	R	"
Leavitt, H. B.	Worthington	R	"
Lowder, H. R	Bloomfield	R	L
Lukenbill, L. C	Marco	R	"
Mallott, C. D	Switz City	R	"
McKissick, O. P.	Linton	R	"
Maurer, Jos	Scotland	NR	"
Norvell, H. V	Bloomfield	R	L
Padgett, Thos. I.	Jacksonville	NR	NR
Quillen, Sam'l N.	Linton	R	L
Reese, Geo. B. M.	Owensberg	R	D
Rose, B. A	Linton	R	L
Selfridge, W. T	Jasonville	R	"
Selfridge, W. R	Worthington	R	"
Sherwood, E. T	Linton	R	"
Sherwood, B. M.	Linton	R	"
Shirts, Elmer	Lyons	R	"
Simons, J. S.	Lyons	R	"
Squires, W. B	Worthington	E	"
Talbott, J. E	Linton	R	"
Thomas, G. A	Linton	R	"
Vanzandt, T. A	Bloomfield	R	"

Regular, 38; Eclectic, 1; not reported, 2. Total, 41.

Hamilton County.

Axline, J. A	Noblesville	R	L
Aldred, J. A	Hortonville	R	"
Applegate, A. J.	Eagletown	R	"
Andrew, V. E	Cicero	R	"
Allen, W. P	Eagletown	PM	"
Booth, A. D	Noblesville	R	"
Baldwin, L. J.	Hortonville	R	"
Cooper, W. E.	Sheridan	R	"
Cook, C. W	Carmel	PM	"
Camp, W. E	Clarksville	R	L
Carney, F. W	Sheridan	R	"
Carey, M. H.	Carmel	PM	"
Carey, Emma C.	Carmel	PM	"
Cook, J. H	Noblesville	R	"
Davenport, L. N.	Sheridan	R	"
Davenport, H. E.	Sheridan	R	"
Done, S. C.	Westfield	R	"
Driver, J. C.	Atlanta	R	"

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Hamilton County—Continued.

Name.	*Postoffice.*	*School.*	*Basis of License.*
Fodrea, Z. H	Westfield	R	L
Fancher, J. W	Sheridan	R	"
Hunt, Gideon	Westfield	R	"
Hicks, J. L	Arcadia	R	"
Heath, J. P	FishersSwitch	R	"
Harrell, Samuel	Noblesville	H	"
Harold, N. E	Westfield	PM	"
Harold, N. G	Carmel	R	"
Haworth, M. C	Noblesville	R	"
Hershey, K. C	Carmel	R	"
Hershey, F. C	Carmel	R	"
Hamilton, R. A	Westfield	E	"
Harrell, M. H	Noblesville	H	"
Hanahan, J. H	Strawtown	R	"
Graham, N. B	Noblesville	R	"
Johnson, M. P	Ekin	R	"
Loehr, E. C	Noblesville	R	"
Loder, Franklin	Hortonville	E	"
Lyle, A. W. T	FishersSwitch	R	"
Loder, Jennie C	Hortonville	E	L
Lamb, Enoch	Fortville	R	"
Mendenhall, A. B	Cicero	R	"
McMurtry, T. J	Boxley	R	"
Miesse, Adam	Noblesville	E	"
Millikin, H. N	Sheridan	PM	"
McFatridge, L. C	Atlanta	R	"
Miller, H. D	Atlanta	R	"
Malott, Wm	Cicero	R	"
Morris, Oliver M	Sheridan	R	L
Morgan, Jean. R	Atlanta	NR	"
Moore, George B	Omega	R	"
Newby, J. C	Sheridan	R	"
Pettijohn, O. B	Noblesville	R	"
Parr, J. N	Jolietville	R	"
Penn, R. L	Deming	R	"
Parker, J. W	Atlanta	E	"
Ross, L. H	Ekin	E	"
Ray, C. C	Arcadia	R	"
Smith, T. J	Noblesville	R	"
Smith, H. B	Olio	R	"
Stout, H. H	Cicero	R	"
Stephens, J. H	Sheridan	E	"
Smith, A. J	Fishers	R	"
Shilt, J. L	Cicero	E	"
Tomlinson, C. H	Cicero	R	"
Tucker, A. R	Noblesville	R	"
Tucker, F. A	Noblesville	R	"
Teeter, G. W	Boxley	PM	"
Toney, J. M	Atlanta	R	"
Utz, H. C	Atlanta	R	"
Wheeler, M. M	Noblesville	E	"
Warford, F. M	Cicero	R	"
Wilmuth, C. S	Noblesville	E	"
Wishard, E. E	Noblesville	R	"
White, T. A	Noblesville	R	"

Regular, 53; Eclectic, 10; Homeopathic, 2; Physio-Medical, 7; not reported, 1. Total, 73.

Hancock County.

Adams, M. M	Greenfield	R	D
Barnes, C. A	Greenfield	R	"
Black, J. P	Greenfield	R	"
Bell, J. S	Philadelphia	R	"
Bruner, C. K	Greenfield	R	"
Bruner, Mary L	Greenfield	R	"
Boots, S. S	Greenfield	E	"
Corey, J. D	McCordsville	R	"
Cox, W. B	Charlottsville	E	NR
Collins, O. A	Mohawk	R	D
Cook, B. H	Wilkinson	R	"
Comstock, J. A	Greenfield	R	"
Dailey, G. W	Charlottsville	E	NR
Ely, L. C	New Palestine	R	D
Fuller, Wm	Greenfield	R	NR
Griffin, L. B	Greenfield	R	D
Gibbs, C. M	Greenfield	R	"
Heller, O	New Palestine	R	"
Hervey, S. W	Fortville	R	"
Howard, N. P	Greenfield	R	"
Julian, J. P	Wilkinsen	E	NR
Justice, W. H	Eden	R	"
Justice, J. H	Greenfield	R	D
Johnston, W. R	Charlottsville	R	"
King, W. R	Greenfield	R	10 yrs.
Larmore, J. M	Greenfield	R	NR
Larabee, W. H	New Palestine	R	D
Lail, J. H	Fortville	PM	NR
Morgan, R. M	McCordsville	R	D
McCord, C. E	Fortville	R	"
Neier, O. C	New Palestine	R	"
Pratt, C. C	Willow Br'ch	R	"
Ramsey, R. B	Greenfield	E	NR
Selman, J. W	Greenfield	R	D
Smith, E	Carrolton	E	NR
Stuart, A. A	Fortville	R	D
Sisson, E. R	Maxwell	R	"
Slocum, S	Eden	R	"
Titus, C	Warrington	R	"
Wilson, R	Shirley	R	"
Welsh, M. D	Shirley	R	"
Washburn, H. A	Shirley	R	"
Yancey, S. P	Fortville	R	"

Regular, 36; Eclectic, 6; Physio-Medical, 1. Total, 43.

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Harrison County.

Name.	*Postoffice.*	*School.*	*Basis of License.*
Best, Daniel	Mauckport	E	L
Bird, J. E	Crandall	R	"
Boston, C. H	Bradford	PM	"
Bottorff, J. C	Corydon	R	"
Daniel, Wm	Corydon	R	"
Davis, W. H	N.Middletown	R	"
Deen, H. K	Central	R	"
Denbo, W. R	Mauckport	R	"
Finley, J. F	Palmyra	R	"
Flanigan, Mary C.	Central	Midwife.	
Forbis, B. F	Laconia	R	L
Fouts, D. C	N. Salisbury	R	"
Funk, Z. T	Corydon	R	"
Habermel, Clara L.	Bradford	H	"
Hays, D. W	Valley City	R	"
Hopper, I. J	Milltown	PM	"
Horner, J. A	Hancock	R	"
Hurst, S. H	Laconia	R	"
Lasley, Rhoda	Cedar Wood	Midwife.	
Lafollette, W. R	N. Salisbury	R	L
Laughlin, S. A	N. Amsterdam	R	"
Lawson, J. E	Corydon	R	"
Martin, G. F	Corydon	R	"
Mitchem, L	Crisp X Roads	R	"
Moore, Wm	Elisabeth	R	"
Melton, Ostin	Dog Wood	R	"
Neely, I. L	Corydon	R	"
Ralston. H. H	Lanesville	R	"
Shoen, Phillip H.	N. Middletown	R	"
Shaw, Samuel L.	Moberly	R	"
Siegler, R. R	Ramsey	R	"
Winders, L. C	Elisabeth	R	"
Wolfe, L. O. P	Mauckport	R	"
Wolfe, Z. C	Corydon	R	"
Wolfe, F. E	Lanesville	R	"
Wolpert, W. I	Elisabeth	R	"
Williams, A	Laconia	Midwife.	

Regular, 30; Eclectic, 1; Homeopathic, 1; Physio-Medical, 2; midwives, 3. Total, 37.

Hendricks County.

Adams, T. J	North Salem	R	NR
Barker, Joel T	Danville	R	"
Barker, Thomas	Danville	R	"
Brooks, M. W	Hazelwood	R	"
Carter, A	Plainfield	R	"
Cooper, Ernest	Plainfield	R	"
Cope, James P	Bridgeport	R	"
Culloden, W. G.	Avon	R	D
Davidson, A. W	Brownsburg	R	NR
Farabee, C. E	Danville	R	"
French, J. S	Pittsboro	R	"
Gilbert, A. K	Clayton	R	"
Heavenridge, A	Stilesville	R	"
Hondley, W. J	Danville	R	"
Hope, C. F	Coatesville	R	"
Hunt, Stephen	Coatesville	R	"
Hunt, Tilman	Plainfield	R	"
Huron, F. H	Danville	H	"
Jennings, Wm. L.	Bridgeport	R	L
Johnson, O. B	Lizton	R	NR
Lawson, W. T	Danville	R	"
Leak, S. O	Lizton	R	"
Marsh, J. L	Brownsburg	E	"
Martin, Simeon	North Salem	R	NR
Masters, N. G	Stilesville	R	"
McClintock, C. W.	Pittsboro	R	"
Obrien, W. H	Clayton	R	"
O'Brien, W. H	Stilesville	R	"
Osborn, John	N. Winchester.	R	"
Parker, M. G	Danville	R	"
Peterson, W. B	Lizton	R	D
Putnam, Jas. G	Cartersburg	E	NR
Reagan, J. S	Plainfield	R	"
Reagan, Jesse	Plainfield	R	"
Seaton, G. W	Clayton	R	"
Smith, T. G	Brownsburg	R	"
Sowder, C. R	Pittsboro	R	"
Strong, A. M	Belleville	R	"
Summers, H. C	Amo	R	"
Terrell, W. H	Stilesville	R	"
White, C. A	Danville	R	"
White, W. H	Amo	R	"
Williams, Luther	Coatsville	R	"
Wischart, O. H	North Salem	R	"
Yoke, Chas	Bridgeport	R	L

Regular, 42; Eclectic, 2; Homeopathic, 1. Total, 45.

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Henry County.

Name.	*Postoffice.*	*School.*	*Basis of License.*
Alexander, Robt	Mech'icsb'g	NR	D
Andrews, Geo. R.	Mt. Summit	R	"
Bailey, George D.	Spiceland	R	"
Barnard, P. C		R	"
Barrett, Omar H.	Knightstown	R	"
Bartlett, A. C.	New Castle	R	"
Bartlett, Claude G	Lewisville	R	"
Benedict, Hanf'd	Springport	R	3 yrs.
Benjamin, A. M.	Dunrieth	R	D
Blossom, J. C.	Mooreland	R	"
Boor, Wm. F	New Castle	R	"
Brubaker, E. H.	New Castle	PM	"
Burke, George W.	New Castle	R	"
Butler, Cecil A	New Castle	R	"
Clapper, David	Mooreland	H	"
Cress, John B.	Knightstown	R	"
Crouse, Henry M		NR	"
Drake, F. J	Knightstown	R	"
Englerth, J. T.	Honey Cr'k	PM	"
Estabrook, L. W.	Springport	R	"
Ferris, Edgar S.	New Castle	R	"
Ferris, Samuel	New Castle	R	10 yrs.
Fleener, Otto F.	Knightstown	R	D
Garrett, Obed H.	Cadiz	R	"
Goodwin, E. W	Mt. Summit	NR	"
Greist, H. W	Kennard	R	"
Griffis, Robert	Middletown	R	"
Gronendyke, O. J.	New Castle	R	"
Gronendyke, T. W	New Castle	R	"
Guyer, Oscar K	Lewisville	R	"
Hardesty, J. C	Millville	R	"
Hess, Frank C	Cadiz	R	"
Hetsler, O. I	Blountsville	E	"
Hobbs, Orville W.	Ogden	R	"
Holloway, L. E.	Spiceland	H	"
Holloway, O. E.		R	"
Homer, R. H	Knightstown	NR	L
Horner, R. H.	Knightstown	PM	D
Johnson, E. M	Knightstown	R	"
Jones, Henry W.	Spiceland	NR	D
Kirk, Elmer E	Spiceland	NR	"
Korns, Harvey	New Lisbon	R	"
McCray, Robert S		R	L
McGavran, W. B.	Knightstown	NR	D
McSherley, J. L.	Sulph'r Spr'gs	R	"
Misner, Walter L.	Mech'icsb'g	PM	"
Mendenhall, E. T.	New Castle	R	"
Oalden, Wilson C.	Shirley	R	10 yrs.
Painter, Berry	Middletown	PM	D
Pendleton, C B.	Mech'icsb'g	PM	3 yrs.
Pickering, Sam'l	New Castle	R	D
Pierce, J. E	Middletown	R	"
Post, Burton O	Sulph'r Spr'gs	R	"
Rodecap, G. W.	Middletown	NR	3 yrs.
Rogers, Samuel G.	New Castle	NR	D
Smith, Geo. H	Greensboro	PM	"
Smith, Robert A.	Greensboro	PM	"
Spitler, C. S	Mooreland	R	"
Stafford, James A.	Millville	PM	"
Stafford, H. G	New Castle	PM	"
Stanley, Jesse C.	Ogden	R	"
Stoute, C. M.	Middletown	PM	"
Stuard, Robert	Spiceland	R	"
Sumners, Osa R.	Middletown	R	"
Thompson, J. F.	New Castle	H	"
Thornburgh, F. L.	Middletown	R	"
Thurston, H. E	Dunreith	PM	NR
Tulley, P. C	Kennard	R	D
Van Matre, C. E.	New Castle	R	"
Wallage, Geo W.	Middletown	R	"
Waters, S. C	Middletown	R	"
Wayman, John C.	New Castle	PM	"
Weeks, Joseph	Mech'icsb'g	PM	"
Weeks, E. J	Mech'icsb'g	PM	"
Wilson, Ralph	Shirley	R	"
Winston, L. V	Knightstown	R	"
Yockey, David, H.	Blountsville	R	3 yrs.

Regular, 49; Eclectic, 1; Homeopathic, 3; Physio-medical, 15; not reported, 9. Total, 77

Howard County.

Alford, H. A	Kokomo	E	D
Barnett, David	Hemlock	NR	10 yrs.
Bates, A. J	Kokomo	R	D
Buck, Wm. H	Kokomo	H	"
Chancellor, S. K.	Kokomo	R	"
Cook. J. M	Russiaville	E	"
Cooper, Wm	Kokomo	E	"
Cooper, Wm. B	Kokomo	R	"
Covalt, A. A	Greentown	R	"
Cox, Edgar	Kokomo	R	"
Dewees, Leander	W. Middleton	R	"
Flora, J. S	Russiaville	E	D
Friermood, E. K.	Greentown	R	"
Gifford, T. N	Kokomo	HT	10 yrs.
Gordon, Wm. S	Plevna	E	D
Hamilton, C. N	Kokomo	R	"
Harrison, Wm	Kokomo	R	"
Hatfield, Wm. A.	Kokomo	PM	"
Hite, Edward A	Kokomo	E	"
Holcome, A. W	Kokomo	H	"
Hull, Wm. H	Center	R	"
Hunter, T. C	Kokomo	H	10 yrs.

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Howard County—Continued.

Name.	Postoffice.	School.	Basis of License.
Jackson, Rose B.	Kokomo	HT	D
Kemp, G. W.	Russiaville	R	"
Kemp, Oliver P	Greentown	R	"
Kern, L.	Kokomo	R	"
Knepples, LaMar	Kokomo	R	"
Marrow, H. W.	Russiaville	R	"
Martin, Amos H	Ridgeway	R	"
Martin, Wm.	Kokomo	R	"
Maughmer, G. C.	Kokomo	R	"
McClurg, Wm H.	Kokomo	R	"
Miller, H. C.	Greentown	R	"
Miller, L C.	Alto	R	"
Moore, E. W.	Kokomo	R	"
Moore, J. B.	Kokomo	R	"
Moulder, J. M.	Kokomo	R	"
Murray, S. T	Greentown	R	10 yrs.
Newlin, W. H.	New London	E	D
Oiler, M. L.	Russiaville	R	D
Peters, D. C.	Greentown	R	"
Powell, E. W	Greentown	R	"
Puckett, J. L	Kokomo	R	"
Rayburn, I. W	Kokomo	R	"
Ross, J. H	Kokomo	R	"
Ross, R. H.	Cassville	R	"
Simmon, L. H.	Kokomo	R	10 yrs.
Smith, R. H	Kokomo	R	D
Smith, Frank L	Kokomo	Ost	"
Thomas, Harvey C.	Kokomo	H	"
Thorne, J. C. F	Kokomo	R	"
Thraillkill, J. D.	Plevna	NR	10 yrs.
Ware, C. M.	West Liberty	R	D
Weed, C. W	Kokomo	NR	10 yrs.
Wright, J. W.	Kokomo	R	D

Regular, 37; Eclectic, 7; Homeopathic, 4; Physio-Medical, 1; Hygeja Therapeutic, 2; Osteopathic, 1; not reported, 3. Total, 55.

Huntington County.

Bonifield, W. D.	Warren	R	D
Burns, A. M.	Bippus	R	L
Chaffee, Wm. C.	Huntington	R	D
Clokey, M. C	Huntington	H	L
Crandel, Thomas	Majenica	E	D
Dippell, Emil T.	Huntington	R	"
Edgington, B. F.	Plum Tree	PM	"
Ferguson, A. M	Huntington	R	"
Ferguson, E.	Huntington	R	"
Frost, R. F	Huntington	R	"
Fry, Chas. W	Huntington	R	"
Gimmill, H. C.	Markle	R	"
Good, Chas. H.	Warren	R	"
Gordon, B. L	Bippus	E	L
Grayston, B. H. B	Huntington	R	D
Grayston, Chas. E	Huntington	R	"
Grayston, Fred W	Huntington	R	"
Gregg, Elijah H	Banquo	E	L
Heath, S. H	Huntington	R	"
Hicks, James M.	Huntington	H	D
Howland, Morton	Markle	R	"
Hunter, John R.	Bippus	E	L
Hupp, Samuel	Warren	R	"
Keefer, F. R.	Andrews	R	"
Kemp, J W	Roanoke	R	"
Kersey, J. B.	Ple's'nt Plain	PM	"
Kilander, W. J	Markle	R	D
King, Jas. R	Roanoke	R	L
Kiskaden, H. S.	Huntington	R	D
Koontz, S.	Roanoke	R	L
Laymon, H. E.	Warren	R	D
Loughridge, Jno.	River	R	"
McIlraine, H. K.	Huntington	R	L
McLin, G. H	Huntington	R & H	D
Mitchell, S. P	Mt. Etna	R	"
Morgan, Frank B.	Huntington	R	"
Murray, L. E	Huntington	R	"
Nelson, Olive O	Huntington	H	L
Nichols ——	Andrews	NR	NR
O'Leary, Geo. M.	Huntington	H	L
Palmer, E. M.	Warren	R	D
Schearer, Julia	Huntington	MW	L
Scott, Noble W	Huntington	R	D
Searles, Joseph D.	Huntington	R	"
Shaffer, Abner H.	Huntington	R	"
Shipley, John B.	Goblesville	PM	"
Smith, Wm. F.	Bippus	E	L
Sprowl, John S	Warren	R	"
Sutton, S. F.	Huntington	H	"
Thomas, M. H.	Huntington	R	"
Wall, F. M	Warren	R	D
Wells, H. O	Andrews	R	"
Wilking, S. V	Roanoke	R	L
Williams, O. B.	Andrews	R	D
Wimmer, G. G	Mt Etna	R	L
Wright, Chas. L.	Huntington	R	"
Wright, Ervin	Huntington	R	"
Wright, Shelby	Bracken	R	"
Yingling, Daniel	Huntington	E	D

Regular, 43; Eclectic, 6; Homeopathic, 5; Physio-Medical, 3; midwife, 1; not reported, 1. Total, 69.

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Jackson County.

Name.	*Postoffice.*	*School.*	*Basis of License.*
Applegate, Geo.	Crothersville	R	L
Applegate, C. R.	Tampico	R	"
Barnes, George O.	Seymour	R	"
Branham, J.	Freetown	E	"
Converse, E. A.	Seymour	E	"
Casey, Wm. M	Seymour	R	"
Cummings, H. A.	Mooney	R	"
Cummings, D. J	Ewing	R	"
Cummings, D. Jos.	Ewing	R	D
Converse, Ray V.	Brownstown	E	L
Ewing, Francis M.	V llonia	R	"
Fleetwood, Bruce	Kurtz	R	"
Galbraith, T. S.	Seymour	R	"
Graessle, Geo. T.	Seymour	R	"
Gerrish, M. F.	Seymour	R	"
Green, William O.	Dudleytown	R	"
Gibson, George W.	Houston	R	"
Gillespie, Chas. E.	Crothersville	R	"
Hill, L. B.	Seymour	R	"
Hunter, Chas. A	Reddington	PM	"
Heller, Fred	Brownstown	R	D
Jenkins, J. M.	Cortland	R	L
Kyte, H. R	Seymour	PM	"
Kennedy, C. E	Freetown	R	"
Kammon, S. H	Seymour	R	D
May, Albert	Crothersville	R	L
Matlock, Neal	Medora	R	"
McMillan, J. P.	Medora	R	"
McCormack, L. R.	Crothersville	R	"
Osterman, A. G.	Dudleytown	R	"
Patrick, C. E.	Seymour	R	"
Perrin, D. Leroy	Marling	R	"
Pettigrew, C. D	Houston	R	"
Ritter, James K	Seymour	R	"
Ruddick, Lindley	Seymour	R	"
Richards, Thos. J.	Mooney	R	"
Rains, George W.	Seymour	R	"
Shuey, George E.	Medora	R	"
Shields, Jas. M.	Seymour	R	"
Shipman, N. N.	Seymour	R	"
Tinch, E. T	Freetown	R	"
Veazy, A. M	Medora	R	"
Vermilya, J. C	Medora	R	"
Whitehead, W. E.	Brownstown	R	"
Wilson, C. L	Ewing	R	"
Wilson, M. V	Medora	R	"
Warner, Wm. H	Crothersville	R	"
Yost, Harry E.	Vallonia	R	"
Zaring, P. A	Tampico	R	"
Bruengger, Margaretha	Seymour	Midwife	L
Moore, Lucinda	Freetown	Midwife	"
Whipperman, Wilhelmina	Seymour	Midwife	"

Regular, 44; Eclectic, 3; Physio-Medical, 2; midwives, 3. Total, 52.

Jasper County.

Name.	*Postoffice.*	*School.*	*Basis of License.*
Berkley, A. L.	Rensselaer	R	D
Besser, Emil	Remington	H	L
English, E. C	Rensselaer	R	D
Hartsell, W. W	Rensselaer	H	"
Johnson, Silas C.	Rensselaer	R	"
Jones, Cyrus V	Kniman	R	"
Kirk, Albert E.	Parr	R	L
Landon, H	Remington	R	D
Moore, S. H	Rensselaer	R	D
Merrill, W. W	Rensselaer	E	L
Pothinsje, P. J	Remington	R	"
Proudley, Geo. W.	Fair Oaks	R	D
Rice, Clair M	De Motte	R	"
Schwier, Wm. C	Wheatfield	R	D
Washburn, I. B.	Rensselaer	R	"
Washburn, Ira M.	Rensselaer	R	"

Regular, 13; Eclectic, 1; Homeopathic, 2. Total, 16.

Jay County.

Name.	*Postoffice.*	*School.*	*Basis of License.*
Allport, John E.	Dunkirk	R	NR
Benson, W. H.	Dunkirk	NR	"
Brown, H. V.	Portland	R	"
Brokaw, R. E.	Portland	R	"
Caylor, Chas. E.	Pennville	R	"
Chew, Wm. A.	Salamonia	NR	"
Clevenger, B. J.	Redkey	R	"
Conner, Norris F.	Redkey	E	"
Davis, Robt. P.	Portland	R	"
Dickes, John T.	Portland	R	"
Earp, Ralph B.	Dunkirk	R	"
Eskew, W. C.	Powers	NR	"
Fair, Herbert D.	Redkey	R	"
Fertich, Geo. W.	Dunkirk	R	"
Garber, J. B.	Dunkirk	R	NR
Glentzer, M. A.	Bryant	E	"
Guy, Samuel D	Bryant	E	"
Hall, John W	Portland	R	"
Hall, Willis M.	Pennville	R	"
Horn, William C.	Pennville	R	"
Hutchinson, J. A.	Salamonia	R	"
Hunt, Thos. N	Dunkirk	R	"
Hutchens, H. C	Portland	NR	"
Jay, Milton T.	Portland	R	"
Kidder, Jas. F.	N Mt. Pleas'nt	R	"
Kidder, John J	Salamonia	E	"
Kinsey, David S	Portland	R	"
Lytle, John S	Dunkirk	R	"

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Jay County—Continued.

Name.	Postoffice.	School.	Basis of License.
Mackey, C. W	Portland	R	NR
Mason, Samuel	Pennville	R	"
Metzger, B. S	Boundary	E	"
Miles, Jacob T	Bryant	R	"
Mills, Cassius C	Redkey	R	"
Mineks, F. W	Portland	H	"
Morehouse. J. A	Portland	PM	"
Moyer. F. E	Pennville	R	"
Munsey, S. E	N. Mt. Pleas'nt	R	"
Murray, D. M	Dunkirk	R	"
Paddock, C. A	Portland	NR	"
Perry, Geo. S	Westchester	R	"
Pierce, John S	Redkey	PM	"
Poling, S. K	Portland	E	"
Ralston, Aug	New Corydon	R	"
Ross, John G	Portland	E	"
Saunders, C. B	Pennville	NR	"
Saunders, J. E	Pennville	PM	NR
Sage, Ira T	Redkey	E	"
Schenck, Fred'k	New Corydon	R	"
Schirack, J. A	New Corydon	R	"
Schwartz, Wm. D	Portland	R	"
Selvey, Sam'l S	Dunkirk	R	"
Sexton, Chas E	Portland	NR	"
Shepherd, G. W	Redkey	R	"
Sims, Israel C	Portland	R	"
Stanton, D. S	Portland	R	"
Stiers, Francis R	Redkey	E	"
Swarts, Wm. W	Balbee	PM	"
Thomas, E. Rose	Redkey	PM	"
Thomas, Ephraim	Redkey	PM	"
Walker, W. H	Portland	R	"
Wiley, Harriet	Portland	R	"

Regular, 38; Eclectic, 9; Homeopathic, 1; Physio-Medical, 6; not reported, 7. Total, 61

Jefferson County.

Name.	Postoffice.	School.	Basis of License.
Austin, F. H	No. Madison	R	D
Burdsall, C. A	Hanover	R	10 yrs.
Cochran, Robt. W.	Madison	R	D
Cooperider, Jeff	Madison	R	"
Copeland, Chas. C.	No. Madison	R	"
Christie, Jas. H	Canaan	R	"
Corya, Philip	Dupont	E	"
Childs, A. G. W	Madison	H	"
Davidson, Wm. R.	Madison	R	"
Denny, Chas. W	Belleview	R	"
Denny, Geo. E	Madison	R	"
Dixon, Z. C	Deputy	R	10 yrs.
Flanders, J. W	Dupont	R	"
Ford, S. M	Madison	R	"
Forshee, Thos. W.	Madison	R	"
Hatch, H. S	Madison	H	"
Hutchings, W. D	Madison	R	"
Graham, N. P	Madison	R	"
Green, W. E	Hanover	E	"
Giltner, Harry A	Chelsea	R	"
Kremer, N. A	Madison	R	"
Lewis, Geo. C	Madison	R	"
Lewis, Jas. F	Dupont	R	"
Lewis, Sam. B	Canaan	R	D
McCoy, W. A	Madison	R	"
McCarty, Wm. W	Canaan	R	"
Mathews, Jas. H	Madison	R	"
Mathews, W. R	China	R	"
Muret, Jas. A	Saluda	R	"
Penn, Benj A	Bryantsburg	E	"
Rawlings, J. V	Wirt	R	"
Robertson, D. W	Deputy	R	"
Ryker, Chas	China	R	"
Sanderson, Thos	Kent	R	"
Shepherd, V	Dupont	R	"
Swan, F. E	Hanover	R	"
Stewart, Geo	Brooksburg	R	"
Smith, Benj. R	Lancaster	R	NR
Stevens, V. C	No. Madison	R	D
Townsend, S. M	Madison	R	"
Tevis, E. R	Brooksburg	R	"
Tevis, Robt. M	Brooksburg	R	"
Trowbridge, D. L.	Dupont	E	"
Williams, C. F	Madison	H	"
Whitsitt, S. A	Kent	R	"

Regular, 38; Eclectic, 4; Homeopathic, 3. Total, 45.

Jennings County.

Name.	Postoffice.	School.	Basis of License.
Adams, S. D	Brewersville	R	10 yrs.
Case, W. W	Zenas	R	D
Corya, W. D	Nebraska	E	"
Crouch, J. H	N. Vernon	R	"
Davenport, H. F.	Hayden	E	"
Firsich, B	N. Vernon	NR	10 yrs.
Gaddy, Orville	Paris Cross'g	R	D
Green, James H	N. Vernon	R	"
Hanna, James L.	Paris Cross'g	R	"
Kendrick, N. C	Butlersville	R	10 yrs.
Martin, F. A	Commiskey	E	L
McClure, J. W	Butlersville	R	D
Mitchel, W. J	N. Vernon	R	D
Mulvey, Jas. W	N. Vernon	R	L
Nelson, Hiram G	Vernon	R	D
Redman, L. H	Scipio	R	"
Richardson, W. H.	Vernon	R	"
Saunders, D. R	N. Vernon	H	"
Stemm, Wm. H	N. Vernon	R	"
Thorp, Robert	Scipio	NR	L
Wildman, W. A	San Jacinto	R	D
Wilson, Wm. M	Scipio	R	L
Wright, E. D	Scipio	PM	D

Regular, 16; Eclectic, 3; Homeopathic, 1; Physio-Medical, 1; not reported, 2. Total, 23.

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Johnson County.

Name.	*Postoffice.*	*School.*	*Basis of License.*
Avery, W. R	Nineveh	R	D
Bice, L C	Edinburg	R	"
Bland, John A	Edinburg	R	"
Byers, R	Trafalgar	E	"
Carnes, Z	Greenwood	R	"
Carter, J. H	Needham	R	"
Christian, G. R	Smith Valley	R	"
Craig, J. A	Greenwood	R	"
Cupp, M. F	Edinburg	R	"
Davis, A. L	Edinburg	R	"
Dixon, John W	Franklin	R	"
Dobyns, P. K	Franklin	R	"
Freeman, F. C	Franklin	H	"
Fugate, W. I	Greenwood	R	"
Given, W	Franklin	R	"
Guthrie, Geo	Greenwood	R	"
Hall, H. J	Franklin	R	"
Hartsock, Will	Greenwood	R	"
Hibbs, I. W	Nineveh	R	"
Kegley, John L	Stones Cross'g	R	"
Lahnann, J. H	Franklin	R	"
Mathews, Accie	Franklin	R	"
Middleton, John	Edinburg	R	"
Myers, Port	Edinburg	R	"
Noble, Thomas B	Greenwood	R	"
Payne, C. F	Franklin	R	D
Payne, P. W	Franklin	R	"
Payne, R. W	Franklin	R	"
Phipps, D L	Whiteland	R	"
Phipps, I. H	Needham	R	"
Province, C	Franklin	R	"
Province, Wm. M	Providence	E	"
Ragsdale, Claud	Trafalgar	E	"
Record, J. N	Franklin	H	"
Terhune, R. W	Whiteland	R	"
Tresslar, Jacob G	Bargersville	E	"
Wadsworth, Chas	Rocklane	NR	NR
Wallace, W. B	Franklin	R	D
Way, E. A	Franklin	R	"
Wertz, Edward	Nineveh	R	"
White, W. H	Edinburg	R	"
Whitesides, L. L	Franklin	R	"
Willian, Carl	Trafalgar	E	"
Willian, E. B	Trafalgar	E	"
Willian, R. Day	Trafalgar	E	"
Williams, C. M	Whiteland	R	"
Wishard, J. N	Greenwood	R	"
Wood, J. C	Franklin	R	"
Wright, A F	Nineveh	R	"
Young, W. L	Edinburg	E	"

Regular, 39; Eclectic, 8; Homeopathic, 2; not reported, 1. Total, 50.

Knox County.

Anderson, Jno. B	Vincennes	R	D
Anderson, Jno. W	Vincennes	R	"
Barnett, John H	Vincennes	R	10 yrs.
Beard, Schuyler C	Vincennes	R	D
Beckes, Lyman M	Vincennes	R	"
Beckes, Norman	Vincennes	R	"
Benham, Chas. W	Vincennes	R	"
Benham, James	Wheatland	R	"
Bever, Mrs. A. C. W	Vincennes	E	"
Black, E. C	Wheatland	R	"
Bonewits, John	Monroe City	R	"
Caney, Patrick H	Vincennes	R	"
Chambers, B. F	Westphalia	R	"
Cullop, James A	Bicknell	R	"
Davenport, W. H	Vincennes	R	"
Davis, Royse	Decker	R	"
DuKate, John S	Pond Creek	R	"
DuKate, J. B	Vincennes	R	"
Ewell, J. A	Red Cloud	R	"
Fairhurst, O. C	Vincennes	R	"
Fairhurst, Omar	Vincennes	R	"
Fox, R. H	Freel'dsville	R	"
Geyer, Fred E	Sandborn	R	"
Gilmore, L. L	Monroe City	R	"
Goldman, Jas. M	Monroe City	R	"
Grigsby, W. B	Vincennes	R	"
Hall, Silas	Vincennes	R	"
Harris, F. M	Vincennes	R	"
Harrison, S. L	Vincennes	R	NC
Held, H. W	Vincennes	R	D
Hodges, W. A	Oaktown	R	"
Hollingsworth, A	Edwardsport	R	"
Hoover, L	Decker	R	"
Jessup, R. B	Vincennes	R	"
Johnston, M. A	Oaktown	R	"
Jones, W. R	Bicknell	R	"
Kessinger, Ellis	Sandborn	R	D
Knapp, George	Vincennes	R	"
Knapp, W. T	Vincennes	H	"
Kelly, F. M	Vincennes	R	"
Lisman, Sam'l J	Oaktown	R	NC
Lytton, Jefferson	Wheatland	R	NC
Mayfield, Geo. E	Bruceville	R	D
Maxedon, T. H	Vincennes	R	"
McCoy, J. N	Vincennes	R	"
McDowell, Lon C	Freel'dsville	R	"
McDowell, M. M	Vincennes	R	"
McDowell, J. D., Sr	Bruceville	R	"
McDowell, Jas. D	Vincennes	R	"
Moore, Reuben G	Vincennes	R	"
Moore, M. G	Vincennes	R	"
Ramsey, J. P	Vincennes	R	"
Ray, J. W	Emison	R	"
Reeve, J. L	Edwardsport	R	"
Robbins, J. T	Wheatland	R	"
Robinson, J. L	Wheatland	R	"
Schaffer, Lee	Sandborn	R	"
Schmadel, J. W	Vincennes	R	"

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Knox County—Continued.

Name.	Postoffice.	School.	Basis of License.
Scott, J. M	Iona	R	D
Smith, H. M	Vincennes	R	"
Smith, Wm	Emison	R	"
Smith, W. F	Vincennes	E	"
Somes, J. F	Vincennes	R	"
Spears, A. H	Edwardsport	R	"
Sprinkle, W. B	Oaktown	R	"
Staley, L. B	Bicknell	R	D
Stewart, Clark E	Vincennes	R	"
Swartzel, Jos. L	Vincennes	R	"
Trotter, Geo. S	Bicknell	R	"
Trout, R. E	Oaktown	R	"
Trueblood, J. W	Monroe City	R	"

Regular, 68; Eclectic, 2; Homeopathic, 1. Total, 71.

Kosciusko County.

Name.	Postoffice.	School.	Basis of License.
Amiss, Jas. M	Silver Lake	R	L
Bash, J. M	Warsaw	R	"
Benson, Wm. O	Milford	H	D
Bowser, J. H	Syracuse	R	L
Burket, C. W	Warsaw	R	"
Burkett, Benj	Warsaw	R	"
Burkett, Wm. W	Sevastopool	R	"
Cammack, Thos	Milford	R	"
Casebeer, I. M	Mentone	R	"
Clayton, C. M	Warsaw	E	"
Coffman, S. W	Pierceton	PM	D
Dederick, Wm	Warsaw	H	L
Doud, Judson W	Packerton	E	"
Dunfee, Jos. W	Etna Green	PM	"
Fermier, P. G	Leesburg	R	"
Flavien, E. B	Silver Lake	R	D
Ford, Lanta W	Syracuse	R	"
Heffley, J. W	Mentone	E	"
Hiner, Leo A	Warsaw	R	L
Hines, W. L	Warsaw	R	"
Hontz, W. C	Syracuse	R	D
Hoopingarner, J. J	Milford	R	L
Hoy, B. F	Syracuse	R	"
Johnson, A. R	Atwood	R	"
Jones, C. A	Palestine	PM	"
Junkin, S. B	N. Webster	R	"
Ketchum, G. V	Claypool	R	"
King, H. O	Pierceton	R	"
Kiplinger, Wm	Burket	R	"
Lechrone, Ira	Silver Lake	R	L
Leedy, Chas. E	Pierceton	R	"
Leiter, Wm. S	Claypool	R	"
Long, Chas. R	Pierceton	R	"
Love, J. W	Millwood	E	"
Lyons, James W	Webster	R	"
Marine, John W	Etna Green	PM	"
McDonald, A. C	Warsaw	R	"
Milice, Anna	Warsaw	E	"
Moro, F	Warsaw	R	"
Owen, Ella P. W	Silver Lake	E	"
Patterson, I. B	Milford	H	"
Potter, John E	Milford	R	"
Radcliff, Floyd E	Burket	R	D
Richer, J. D	Warsaw	H	L
Schoonover, W. R	Warsaw	R	"
Shackelford, T. J	Warsaw	R	"
Sherbondy, G. W	Silver Lake	E	"
Shreve, Franklin	Warsaw	R	"
Smith, Jas. S	Warsaw	PM	"
Snodgrass, S. J	Burket	R	"
Stockberger, E	Milford	E	"
Tennant, L. H	Pierceton	E	"
Thomas, Chas. E	Leesburg	R	D
Warvel, J. L	Sidney	H	"
Webber, I. B	Warsaw	R	L
White, S. G	Warsaw	R	"
Yocum, M. G	Mentone	E	"

Regular, 37; Eclectic, 10; Homeopathic, 5; Physio-Medical, 5. Total, 57.

Lagrange County.

Name.	Postoffice.	School.	Basis of License.
Benham, F. A	Lagrange	H	D
Broughton, F. H	Wolcottville	R	"
Bucher, J. C	Stroh	R	"
Cook, W. M	Lagrange	H	"
Dancer, C. W	Stroh	R	"
Denny, J. N	Topeka	R	10 yrs.
Dryer, D. W	Lagrange	R	D
Eash, S. M	Shipshewana	R	"
Engle, J. B	Lagrange	R	10 yrs.
Foster, J. H	Wolcottville	R	D
Griffin, A. L	Topeka	R	"
Grubb, A. G	Mongo	R	"
Hostetler, A. J	Shipshewana	R	"
Hughes, Wm	Lima	R	"
Newnam, H. M	South Milford	R	D
Reed, U. W	Topeka	H	"
Schrock, H. W	Lagrange	R	"
Schrock, J. J	Scott	R	"
Short, J. L	Lagrange	R	"
Short, W. H	Lagrange	R	"
Swabey, J. B	Lima	R	"
Thoms, A	Scott	R	"
Vaughan, I. J	Topeka	R	"
Wade, F. C	Lima	R	"
White, E. G	Lagrange	R	"
Wyatt, A. R	Lagrange	PM	"
Youngkin, J. W	Wolcottville	E	10 yrs.

Regular, 22; Eclectic, 1; Homeopathic, 3; Physio-Medical, 1. Total, 27.

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Lake County.

Name.	*Postoffice.*	*School.*	*Basis of License.*
Bacon, E. R.	Lowell	R	NR
Bick, John M.	Hammond	R	"
Blackstone, J. K.	Crown Point	R	"
Blair, C. H	Hammond	E	"
Brannon, G. D.	Crown Point	R	"
Brown, H. M.	East Chicago	R	"
Campbell, C. W.	Hammond	NR	
Clark, James T.	Hammond	R	"
Davis, F. A.	Lowell	R	"
Davis, John E	Lowell	R	"
Disbrow, E. D.	Hammond	R	"
Gerrish, A. A.	Lowell	R	"
Gibbs, James C.	Crown Point	H	"
Gordon, Pling P	Hobart	R	"
Gromann, Chas	Brunswick	H	"
Hansen, R. W.	Hammond	R	"
Heimlich, A F.	Hammond	R	"
Henderson, J. P.	Hammond	R	"
Higgins, John.	Crown Point	R	"
Hill, Jesse L	Lowell	R	"
Hoskins, George	Whiting	R	"
Horvat, Wm. F.	Hammond	R	"
Howell, J. W. S	Hammond	R	"
Ibach, P. G.	Hammond	R	"
Iddings, H. L	Merrillville	R	"
Jackson, L. D.	Hammond	PM	"
Jackson, Mary E.	Hammond	PM	"
Keefer, F. R.	Hammond	R	"
Kohr, Thos. W	East Chicago	R	"
Lauer, A. J.	Whiting	E	"
Mackey, R. C.	Hobart	R	NR
Merrill, W. W.	Hammond	E	"
Miller, H. C. F.	Hobart	R	"
Oberlin, Thos. W.	Hammond	R	"
Pannenborg, J. C.	Hammond	R	"
Patterson, A. G.	East Chicago	R	"
Pettibone, Henry	Crown Point	R	"
Putnam. W. E	Whiting	R	"
Quincy. Wm. C.	Lowell	E	"
Reed, John H.	Hammond	R	"
Rhodes, C. C	Whiting	H	"
Ruckel, John F.	Hammond	H	"
Scheddell, W. A.	Crown Point	R	"
Schliecker, A. G	East Chicago	R	"
Seidler, Anthony	Dyer	R	"
Sharrer, H. E.	Hammond	R	"
Smith, E. E	Hammond	R	"
Spear, Robert	East Chicago	R	"
Stauffer, E. R.	Hammond	R	"
Stranz, L. V.	Hanover C't'r	H	"
Swartz, H. P	Crown Point	R	"
Take, John F.	Whiting	E	"
Turner, Sam'l R.	Hammond	R	"
Vaughn, Martin	Hammond	R	"
V. DeWalker, J. C.	Hammond	E	"
Von Osinski, Jos.	Crown Point	E	"
Watson, Jos. C.	Hobart	R	"
Wilcox, Helen B.	Hammond	H	"
Worrell, Wm. B.	Hobart	H	"

Regular, 42; Eclectic, 7; Homeopathic, 7; Physio-Medical, 2; not reported, 1. Total, 59

Laporte County.

Annis, E. L	Laporte	R	D
Blinks, E. G	Michigan City	R	"
Bowman, Wm	Wanatah	H	10 yrs.
Bacon, V. V	Michigan City	R	D
Bowers, W	Michigan City	R	"
Bowell, Bo	Laporte	R	"
Campbell, H M	Westville	H	"
Crawford, E. F. W.	Hanna	NR	"
Dakin, Geo. M	Laporte	E	"
Darling, Nelson S.	Laporte	R	"
Drescher, M L. B.	Michigan City	R	"
Ehrlich, H. K.	Laporte	R	"
Fahnestock, A. A.	Laporte	H	"
Fahnestock, C. S.	Laporte	H	"
Fisher, W. H	Wanatah	R	"
Fogerty, Mary	Michigan City	O	"
Fuller, C. D.	Rolling Prairie	H	"
Godfrey, W. R	Michigan City	R	"
Gray, W. H	Michigan City	NR	"
Gray, J. L	Laporte	R	"
Hollenbeck, B. W.	Westville	E	"
Kelly, J. N	Westville	R	"
Kerrigan, J. J	Michigan City	R	"
Ledbetter, J. N	Michigan City	R	"
Leedy, Chas. V.	Union Mills	R	"
Leeson, Geo. M	Wanatah	R	D
Long, H. H	Kingsbury	R	"
Mack, C. S	Laporte	H	"
Malone, Brigitta E.	Laporte	R	"
Martin, F. V	Michigan City	H	"
Martin, J. S.	Rolling Prairie	R	10 yrs.
Martin, H. H.	Laporte	H	D
Meyer, J. H. Wm	Laporte	R	NR
McIntyre, W. H	Michigan City	NR	D
Morrison, H. E.	Laporte	R	"
Preston, H. P	Laporte	H	"
Rogers, J. B.	Michigan City	H	"
Rubin, B	Michigan City	R	"
Short, R. B.	Union Mills	R	"
Smith, Milton S	Laporte	H	"
Spinning, A. L.	Michigan City	R	"
Sutherland, O. L.	Laporte	H	"
Tillotson, A. G.	Michigan City	R	"
Walkinshaw, Wm.	Stillwell	R	"
Wardner, Horace	Laporte	R	"
Warren, F. R	Michigan City	R	"
Wells, Catherine J	Laporte	H	"
Wilcox. F. T	Laporte	R	"
Wilson, W. B.	Rolling Prairie	E	10 yrs.
Wilson, H. W.	Michigan City	R	D

Regular, 30; Eclectic, 3; Homeopathic, 13; Osteopathic, 1; not reported, 3. Total, 50.

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Lawrence County.

Name.	*Postoffice.*	*School.*	*Basis of License.*
Allen, E. F	Fayettville	R	10 yrs.
Andrews, John R.	Rivervale	R	D
Base, A. W	Bryantsville	R	"
Bullitt, Thos. W	Rivervale	R	"
Butler, W. C	Leesville	R	"
Boyd, L. G	Tunnelton	R	"
Culmer, Walter N.	Springville	R	"
Dierking, A. W	Oolitic	R	"
Dixon, H. C	Tunnelton	R	"
Duncan, J. B	Bedford	R	"
Dings, W. H	Mitchell	R	"
Donica, T. M	Tunnelton	R	10 yrs.
Emery, C. H	Bedford	R	D
Ellison, W. T	Heltonville	R	"
Faubion, James	Heltonville	R	"
Freeland, John T.	Bedford	R	"
Gibbons, John A.	Mitchell	R	"
Gunn, J. H	Springville	R	"
Hunter, F. S	Bedford	R	"
Hornocker, S. D	Silverville	R	10 yrs.
Heckman, W. H	Bedford	H	D
Kelley, James C	Mitchell	R	"
Larkin, J. B	Mitchell	R	D
Lowder, C	Popcorn	R	NR
Martin, R. E	Heltonville	R	D
Mitchell, E. E	Avoca	R	"
McFarlin, J. T	Williams	R	"
McDonald, A. J	Bedford	R	"
McLaughlin, O	Oolitic	R	10 yrs.
Molz, Chas	Bedford	R	D
Newland, J. W	Bedford	R	NR
Perkins, E. L	Oolitic	R	D
Raisden, C. E	Bedford	R	"
Raubadeaux, L. B.	Springville	PM	"
Smith, S. W	Leesville	R	"
Smith, W. H	Bedford	R	10 yrs.
Short, R. B	Bedford	R	D
Stipp, F. E	Bedford	R	"
Voyles, H	Bedford	R	"
Walls, Geo. W	Mitchell	R	"
Woolery, Perry	Heltonville	R	"
Bynes, J. D	Mitchell	R	"
Sherwood, W. C	Bedford	NR	L

Regular, 40; Homeopathic, 1; Physio-Medical, 1; not reported, 1. Total, 43.

Madison County.

Alexander, Lot E.	Pendleton	R	D
Armington, C. L.	Anderson	R	"
Armstrong, E. W.	Alexandria	R	"
Armfield, J. D	Elwood	R	"
Armfield, T. O	Elwood	R	"
Atherton, R. M	Anderson	H	"
Atkins, C. R	Anderson	R	"
Austin, M. A	Anderson	R	"
Austin, Winser	Summitville	R	10 yrs.
Baldwin, G. C	Summitville	R	"
Beck, J. E	Florida	R	D
Blume, J. C	Elwood	E	"
Boram, E. V	Markleville	R	"
Bradbent, O	Anderson	R	"
Branch, C. N., Jr.	Anderson	R	"
Branch, C. N., Sr	Anderson	R	"
Brown, Martin	Anderson	R	"
Brownback, O. W.	Pendleton	R	"
Bush, Chas. L	Anderson	H	"
Buxton, A. J	Emporia	R	"
Charles, Etta	Summitville	R	"
Channing, W. S	Pendleton	PM	"
Chittenden, G. F	Anderson	R	"
Chittenden, E. W.	Anderson	R	"
Clark, Thos. J	Summitville	E	"
Clark, W. P	Orestes	R	"
Conrad, E. M	Anderson	R	"
Collins, A. W	Anderson	R	"
Coffin, O. S	Alexandria	E	"
Cotton, C. C	Elwood	R	"
Covertson, J. W	Frankton	R	10 yrs.
Cook, Joel	Orestes	R	"
Cook, Jno. W	Pendleton	R	D
Crismond, J. W	Anderson	R	10 yrs.
Cullen, J. C	Anderson	R	D
Cummins, Jas. L.	Anderson	PM	10 yrs.
Davis, J. W	Anderson	PM	D
Dick, C G	Elwood	R	"
Diven, Chas. E	Anderson	R	"
Druly, O. E	Anderson	R	"
Ebert, J. D	Dundee	R	10 yrs.
Ellis, J. C	Anderson	R	D
Fairfield, W. J	Anderson	R	"
Fattic, J. B	Anderson	R	"
Fankboner, A. V.	Summitville	R	"
Fisher, J. M	Lapel	R	10 yrs.
French, W. J	Frankton	R	D
Fussell, L	Markleville	R	10 yrs.
Garrettson, W. M.	Perkinsville	R	D
Garner, J. Q	Elwood	R	"
Ginn, J. F	Elwood	PM	"
Gibson, J. J	Alexandria	R	10 yrs.
Glass, Wm. M	Summitville	R	D
Hammond, J. H	Anderson	H	"
Hannahan, John	Elwood	R	"
Harter, J. H	Anderson	R	10 yrs.
Harter, W. P	Anderson	R	"
Hall, J. E	Alexandria	R	D
Heath, W. M	Anderson	R	"
Hopenwrath, W. H.	Elwood	R	"

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Madison County—Continued.

Name.	*Postoffice.*	*School.*	*Basis of License.*
Horne, W. M	Anderson	R	D
Hunt, J. W	Anderson	R	"
Hunt, M V	Anderson	R	"
Jones, H. E	Anderson	R	"
Jordan. D. W	Anderson	R	"
Kellar, F. G	Alexandria	R	"
Killgore, Frank	Ingalls	R	"
Kneale, W. W	Anderson	R	"
Leib, Alpha R	Anderson	H	"
Littlefield, C. W	Alexandria	H	"
Line, B. A	Alexandria	PM	"
Littler, J. M	Ingalls	R	"
Long, J. A	Anderson	R	"
Ludlow, Chas	Alexandria	E	"
Masgana, E. M	Alexandria	R	"
Mason, U. H	Anderson	H	"
Mauring, N. H	Elwood	R	"
McTurnan, M. J	Rigdon	R	L
McWilliams, O. E.	Anderson	R	D
Mendenhall, F. F.	Elwood	R	"
Mercer, A. R	Alexandria	R	"
Miley, Isaiah	Anderson	R	"
Miller, A. W	Anderson	H	"
Miller, Elizabeth	Anderson	H	"
Miller, Harry L	Elwood	R	"
Millikan. J. H	Elwood	R	"
Moir, J. G	Elwood	R	"
Moon, Allen	Leisure	R	10 yrs.
Moore, J. R	Lapel	R	D
Morrison, J. O.	Anderson	PM	"
Newcomer, G. V	Elwood	R	"
Newhouse, J. T	Chesterfield	PM	"
Newlin, S C	Anderson	R	"
Nolan, Chas. N	Anderson	H	"
Noonse, F. P	Alexandria	R	"
Osborn, W. M	Alexandria	R	"
Otto, A. E	Alexandria	R	"
Owen, T. S	Elwood	R	"
Parret, A. M	Anderson	R	"
Peck, J. S. W	Frankton	R	10 yrs.
Perce, B. H	Anderson	R	D
Perry, A. J	Alexandria	R	"
Petro, B. L	Markleville	R	"
Phylo, D. W	Anderson	PM	D
Plough, M. L	Elwood	R	"
Quickel, D. S	Alexandria	R	"
Runyan, J. F	Alexandria	H	"
Rush, M. A	Anderson	R	"
Saunders, Jos	Anderson	R	"
Saunders, G. C	Alexandria	H	"
Saylor, F. L	Elwood	R	"
Schaeffer, A. R	Alexandria	E	"
Schurtz, C. D	Alexandria	R	"
Scott, W. F	Linwood	R	10 yrs.
Sears, A. H	Anderson	H	D
Shepard, S. D	Anderson	R	10 yrs.
Sigler, Daniel	Elwood	R	D
Spitzmesser, J. L.	Elwood	R	10 yrs.
Stanford, H. H	Lapel	R	D
Stephenson, T. J	Lapel	R	"
Stewart, Jonas	Anderson	R	"
Stone, Frank L	Pendleton	PM	"
Stockhardt, P. E.	Elwood	R	"
Strauss, L. M	Alexandria	R	"
Sullivan, O. H	Alexandria	R	"
Suttner, C. N	Elwood	R	"
Styles, H. J	Anderson	R	"
Terrell, Luther B	Anderson	R	"
Tobins, A. W	Elwood	R	"
Trueblood, Chas	Anderson	R	"
Tulley, J. A	Pendleton	R	"
Ulmer, D. R	Alexandria	R	"
Vigus, C. B	Rigdon	R	"
Walser. J. A	Anderson	R	10 yrs.
White, T. A	Frankton	R	D
White, F. W	Summitville	PM	"
White, J. W	Summitville	PM	"
Wiggins, E. L	Elwood	R	"
Williams, Chas. F.	Summitville	R	"
Williams, J. B	Anderson	R	"
Williams, L. O	Anderson	R	"
Willson, S. C	Anderson	R	"
Whitledge, G. A	Anderson	R	"
Wood, N. S	Anderson	R	"
Wright, C. R	Frankton	R	"

Regular, 116; Eclectic, 5; Homeopathic, 12; Physio-Medical, 11. Total, 144.

Marion County.

Abbett, Chas. H	Indianapolis	E	NR
Abbett, F. M	Indianapolis	E	"
Adams, J. N. B	Indianapolis	R	"
Adams, Ben. O	Indianapolis	R	"
Adams, H. A	Indianapolis	H	"
Alexander, J. C	Indianapolis	R	"
Alexander, J. T	Indianapolis	R	"
Alford, C. H	Indianapolis	R	"
Allen, H. R., Jr	Indianapolis	R	"
Allen, Chas. B	Indianapolis	R	"
Allen, Wesley	W. Newton	R	"
Amos, Edward N	Indianapolis	R	NR
Anderson, W. R	Indianapolis	R	"
Anderson, D. H	Indianapolis	R	"
Anderson, J. E	Indianapolis	H	"
Anthony, J. R	Indianapolis	R	"
Anthony, E. G	Indianapolis	PM	"
Anthony E	Indianapolis	R	"
Argaduse, J. B	Indianapolis	R	"
Ayres, Arthur L	Indianapolis	R	"
Bacon, Harriet C	Indianapolis	R	"
Bahr, Max A	Indianapolis	R	"

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Marion County—Continued.

Name.	*Postoffice.*	*School.*	*Basis of License.*
Baker, J. J	Indianapolis	R	NR
Baldwin, F. J	IndianapolisPM		"
Baldwin, H. G	Indianapolis	H	"
Ball, Addison W	Indianapolis	R	"
Ball, Cutler T	Indianapolis	R	"
Ballard, J. H	Indianapolis	R	"
Barker, Mary A	Indianapolis	R	"
Barnes, Henry F.	Indianapolis	R	"
Barnes, A. L	Southport	R	"
Barmm, C. E	Indianapolis	R	"
Barnhill, J. F	IndianapolisPM		"
Bates, Joseph W	Broad Ripple	R	"
Beard, Elisha	Indianapolis	R	"
Beall, Walter B	Indianapolis	R	"
Beck, Wm. S	Indianapolis	R	"
Becker, F. C	Indianapolis	R	"
Bergener, G. J	Indianapolis	R	"
Bedford, C. T	IndianapolisPM		"
Bell, L. P	IndianapolisNR		"
Bell, Guido	Indianapolis	R	"
Benepe, Jno. L	Indianapolis	R	"
Benham, J. F	Indianapolis	R	"
Bennett, T. N	Nora	R	"
Berauer, J. M	Indianapolis	R	"
Berry, David T	Indianapolis	R	"
Best, Wm. P	Indianapolis	E	"
Biebinger, John	Cumberland	R	"
Bigger, R. H	Indianapolis	R	"
Bigger, R. F	Indianapolis	R	"
Billman, G. S	Indianapolis	R	"
Birket, C. T	Castleton	E	"
Blue, Uriah L	Indianapolis	E	"
Boersig, Jos. A	Indianapolis	R	"
Bonham, A. N	Indianapolis	H	"
Booz, J. J	Indianapolis	R	"
Bower, J. V	Millersville	R	"
Bowers, I. H	Indianapolis	H	"
Boyd, Jas. T	Indianapolis	H	"
Boynton, C. S	Indianapolis	R	"
Brayton, A. W	Indianapolis	R	"
Brennen, V. J	Indianapolis	R	"
Brigh m, E. B	IndianapolisPM		"
Brill, J. H	Indianapolis	R	"
Brown, Benj. A	Brightwood	R	"
Brown, Sam'l M	New Bethel	R	"
Brown, C. S	Wanamaker	R	"
Brown, Eli F	Indianapolis	R	"
Brown, Jno. R	Indianapolis	R	"
Brown, Wm. M	Clermont	E	"
Brown, Daniel N	Indianapolis	R	"
Browning W. J	IndianapolisNC		"
Brubaker, A. S	Indianapolis	R	"
Bryan, D. C	Indianapolis	R	"
Bryan, T N	Indianapolis	R	"
Bryson, R. Anna	IndianapolisPM		"
Buchanan, W. A	IndianapolisNC		"
Buckner, E. L	Indianapolis	R	"
Buehler, Jacob	Indianapolis	R	NR
Bula, R. W	Indianapolis	H	"
Burckhardt, Louis	Indianapolis	R	"
Burner, Louis	Indianapolis	R	"
Bye, W. O	Indianapolis	E	"
Bye, Benj. F	Indianapolis	H	"
Cain, J. D	Indianapolis	R	"
Cain, J. C	Indianapolis	R	"
Caldwell, Robert	Acton	R	"
Caldwell, W. H	Indianapolis	R	"
Campbell, L. S	Indianapolis	R	"
Canfield, B. V	Indianapolis	R	"
Canaday, Jas. W	Indianapolis	R	"
Caraway, S. H	Indianapolis	R	"
Carey, G. A E	Indianapolis	R	"
Carter, Jas	Indianapolis	R	"
Carter, Wm. J	Indianapolis	R	"
Carter, C A	Indianapolis	R	"
Carter, H. W	Indianapolis	R	"
Carroll, R. J	Indianapolis	R	"
Carson, L. O	Traders Point	R	"
Carvin, J. M	IndianapolisPM		"
Casebeer, J. B	Indianapolis	R	"
Castor, H. C	Indianapolis	R	"
Chambers, Wm. H	Indianapolis	R	"
Champion, Jos. B	Indianapolis	R	"
Charlton, F. R	Indianapolis	R	"
Christian, Wilmer	Indianapolis	R	"
Christian, Geo. R	Glenns Valley	R	"
Clark, A J	Indianapolis	R	"
Clark, Wm. H	Indianapolis	E	"
Clark, E. D	Indianapolis	R	"
Clark, H P	Indianapolis	R	"
Clark, W. B	Indianapolis	H	"
Cleaveland, C. F	Indianapolis	E	"
Clemmer, F. O	Indianapolis	H	"
Clevinger, Wm. F	Indianapolis	R	"
Cline, L. C	Indianapolis	R	"
Cloud, Laura B. J	IndianapolisPM		"
Coble, Geo. A	New Augusta	R	"
Cole, Albert M	Indianapolis	R	"
Coleman, J. M	Indianapolis	E	"
Collop, Emma J	Indianapolis	R	"
Combs, Geo. W	Indianapolis	R	"
Comingor, J. A	Indianapolis	R	"
Compton, J. A	Indianapolis	H	"
Conger, E. S	Indianapolis	R	"
Cronin, M. C	Indianapolis	R	"
Cook, Geo. J	Indianapolis	R	"
Cook, J. H	Indianapolis	R	"
Cook, M. D	Indianapolis	R	"
Coonfield, Wm. M	Cumberland	R	"
Cornell, Cora B	Indianapolis	R	"
Coughlin, Geo. E	Indianapolis	R	"
Courtney, Thos. E	Indianapolis	R	"
Cox, Ira E	Indianapolis	R	"
Craig, Wm. B	Indianapolis	R	"

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Name.	*Postoffice.*	*School.*	*Basis of License.*
Cramm, Carl J	Indianapolis	R	NR
Crans, Jas. T	Indianapolis	R	"
Cropper, Eva A	Indianapolis	R	"
Crose, S. E	Indianapolis	R	"
Crow, Chas. R	Indianapolis	E	"
Culver, Dudler M.	Indianapolis	R	"
Cunningham, H. S	Indianapolis	R	"
Curryer, Wm. F	Indianapolis	E	"
Curry, Thos W	Southport	R	"
Curtis, Jno. E	Indianapolis	R	"
Darrach, Geo. W	Cumberland	R	"
Dannettelle, F. F.	Indianapolis	R	"
Davis, Eugene	Indianapolis	R	"
Davis, E. J	IndianapolisPM		"
Davis, Joel R	IndianapolisPM		"
Davis, Newton C	Indianapolis	H	"
Davis, Andrew P	IndianapolisRN		"
Davis, Luther M	IndianapolisPM		"
Davis, Wm. T	Indianapolis	R	"
Daugherty, J. H	Irvington	R	"
Daum, A. W	Indianapolis	R	"
Day, Clark E	IndianapolisPM		"
Dearmine, John	Indianapolis	E	"
Dearmine, J. H	Acton	H	"
DeHaas, Thos. W.	Indianapolis	R	"
Deitch, Oscar S	Indianapolis	R	"
Dellett, Jacob	Indianapolis	E	"
Denson, Henry A.	Indianapolis	R	"
DeVaney, M. O	Indianapolis	R	"
Diehl, Edward H	Indianapolis	R	"
Dietch, O. L	Indianapolis	R	"
Dodds, W. T. S	Indianapolis	R	"
Dowell, Geo. W	Indianapolis	E	"
Doying, Emma N.	Indianapolis	R	"
Drybraugh, A	IndianapolisPM		"
Dudley, H. W	Indianapolis	R	"
Dugan, Thos. J	Indianapolis	R	"
Dunlevy, Ira E	Indianapolis	R	"
Dunning, L. H	Indianapolis	R	"
Durham, C. O	Indianapolis	R	"
Duthie, Lawson A	IndianapolisPM		"
Earp, Samuel E.	Indianapolis	R	"
Eastman, Thos. B.	Indianapolis	R	"
Eastman, Jos. R	Indianapolis	R	"
Eastman, Jos	Indianapolis	R	"
Edenharter, G. F.	Indianapolis	R	"
Edwards, S G	Indianapolis	R	"
Erdman, B	Indianapolis	R	"
Egbert, James	Indianapolis	R	"
Eisenbeiss, E. M	Indianapolis	R	"
Elbert, S. A	Indianapolis	R	"
Elder, E. C	Indianapolis	R	"
Engle, W. C	Brightwood	R	"
Erskine, Amos C	Indianapolis	R	"
Eskew, Howell T.	Indianapolis	R	"
Ewing, C. K	Indianapolis	H	"
Falk, Frederick	Indianapolis	R	"
Farmer, S. W	Indianapolis	E	NR
Farrow, W. R	Indianapolis	R	"
Fauve, Adrian E	Indianapolis	R	"
Ferguson, F. C	Indianapolis	R	"
Ferguson, Chas. E	Indianapolis	R	"
Ferree, S. L	Indianapolis	R	"
Field, M. H	Indianapolis	R	"
Fisher, G. C	Indianapolis	R	"
Fisher, A. W	Indianapolis	PM	"
Fisk, J. G	Indianapolis	R	"
Flanagan, May L.	Indianapolis	H	"
Fletcher, Calvin I.	Indianapolis	R	"
Fletcher, W. B	Indianapolis	R	"
Ford, C. A. C	Indianapolis	R	"
Foxworthy, F. W.	Indianapolis	R	"
Franz, Jno. P	Indianapolis	R	"
Freeland, J. L	Indianapolis	R	"
French, Martha J.	Indianapolis	R	"
French, Benf. F	Indianapolis	H	"
Funk, J. B	Indianapolis	R	"
Furniss, Henry W	Indianapolis	R	"
Furniss, S. A	Indianapolis	R	"
Gabe, Harry E	Indianapolis	R	"
Gaddes, Thos	Indianapolis	R	"
Galloway, C. E	Indianapolis	R	"
Gardner, John A.	Indianapolis	E	"
Gardner, Jesse	Indianapolis	E	"
Garshwiler, W. P.	Indianapolis	R	"
Garstang, R	Indianapolis	R	"
Garver, John J	Indianapolis	R	"
Gates, W. J	Indianapolis	R	"
Gay, Ellen M	Indianapolis	H	"
Gaylord, H. G	Indianapolis	R	"
Gebauer, E. H	Indianapolis	R	"
Geis, John F	Indianapolis	R	"
George, Chas. M	Indianapolis	R	"
George, J. D	Indianapolis	H	"
George, Wm. E	[illegible]ndianapolis	H	"
Gerard, Royal [illegible]	[illegible]ndianapolis	R	"
Gillespy, F. P	[illegible]le[illegible]ns Valley	R	"
Gillespie, Chas. E.	Indianapolis	R	"
Given, W. S	Indianapolis	R	"
Goer, Chas. S	Indianapolis	R	"
Graff, J. H	Broad Ripple	R	"
Grahn, E. G	Indianapolis	E	"
Graham, H. M	Indianapolis	R	"
Graham, Alois B	Indianapolis	R	"
Gray, Wm	Indianapolis	R	"
Gray, Emmett E	Indianapolis	R	"
Gundelfinger, B. M	Indianapolis	R	"
Guthrie, Geo L	Indianapolis	R	"
Haag, E. L. A	Indianapolis	R	"
Hadley, Edgar	Indianapolis	R	"
Hadley, Evan	Indianapolis	R	"
Haggard, E. M	IndianapolisPM		"
Hammer, N. C	IndianapolisPM		"
Hansen, M. J. T	Indianapolis	R	"

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Name.	*Postoffice.*	*School.*	*Basis of License.*
Harbert, John P	Indianapolis	E	NR
Harp, F. W	Indianapolis	R	"
Haskinson, A	Indianapolis	R	"
Harvey, Wm. D	Indianapolis	R	"
Harvey, D. B	Cumberland	R	"
Harvey, Wm. F	Brightwood	R	"
Harvey, Jessie B	Indianapolis	R	"
Hart, Millard M	Indianapolis	R	"
Harold, A. R	IndianapolisPM		"
Harold, C. N	IndianapolisPM		"
Haslep, Marietta	Indianapolis	R	"
Hasty, Geo	IndianapolisPM		"
Haynes, J. R	Indianapolis	H	"
Haynes, W. H	Indianapolis	R	"
Heath, F. C	Indianapolis	R	"
Heil, Chas. P	Indianapolis	E	"
Helming, T. W	Indianapolis	H	"
Heltman, Jeff. K	Oaklandon	R	"
Henkle, Jas. S	IndianapolisNC		"
Hinshaw, T. M	Indianapolis	R	"
Hervey, E. V	Indianapolis	R	"
Hessler, Robert	Indianapolis	R	"
Hettinger, I. B	Indianapolis	R	"
Hicks, J. P	Indianapolis	R	"
Hicks, J. M	Indianapolis	H	"
Hill, A. A	Indianapolis	R	"
Hobbs, Alice L	Indianapolis	R	"
Hodges, E. F	Indianapolis	R	"
Hodgin, E. E	IndianapolisPM		"
Holloway, Jas. C	Indianapolis	H	"
Hollingsw'rth, J.S	Indianapolis	R	"
Hood, T C	Indianapolis	R	"
Hoover, John E	Indianapolis	R	"
Horne, J. A	Indianapolis	R	"
Hoskins, W. D	Indianapolis	R	"
Hoss, J. V	Indianapolis	R	"
Houser, J. A	Indianapolis	R	"
House, G. H. F	Indianapolis	R	"
Howard, L. N	Indianapolis	H	"
Howe, Wm. F	Indianapolis	R	"
Howe, R. M	Indianapolis	E	"
Hulsizer, E. E	Clermont	R	"
Hurty, J. N	Indianapolis	R	"
Hylton, A. J	Indianapolis	R	"
Irick, Geo. Wm	IndianapolisPM		"
Jacobs, Harry A	Indianapolis	R	"
Jameson, P. H	Indianapolis	R	"
Jameson, Henry	Indianapolis	R	"
Jeffries, W. E	Indianapolis	R	"
Jenkins, Jennie	Indianapolis	R	"
Jennings, W. L	Bridgeport	R	"
Jeter, C. E	Indianapolis	E	"
Jeter, Frank	Indianapolis	E	"
Johnson, Wm. N	Indianapolis	R	"
Johnson, O. A	Indianapolis	E	"
Johnson, J. S	Indianapolis	E	"
Johns, Stephen M	IndianapolisNC		"
Johnston, D. E	Indianapolis	R	NR
Johnston, H. A	Indianapolis	R	"
Jones, P. M	Indianapolis	E	"
Jones, N. I	Indianapolis	R	"
Jones, Oscar	Indianapolis	R	"
Jones, Levi M	N. Ind'polis	R	"
Jordan, J. S	Indianapolis	E	"
Jordan, Ira H	Indianapolis	R	"
Kahlo, Geo. D	Indianapolis	R	"
Kahn, D. L	Indianapolis	R	"
Kelsey, A. I	Indianapolis	R	"
Kelsey, R. C	IndianapolisNC		"
Keller, A. R	Indianapolis	R	"
Kendrick, Wm. N	Indianapolis	R	"
Kennedy, Sam. A	Indianapolis	R	"
Kimberlin, A. C	Indianapolis	R	"
Kindelberger, W	Indianapolis	R	"
Kirkpatrick, J. B	Indianapolis	R	"
Kistner Frank B	Indianapolis	R	"
Kitchen, John M	IndianapolisNC		"
Knapp, S. O	Indianapolis	R	"
Knerr, Leonora E	Indianapolis	R	"
Knerr, Chas. J	Indianapolis	R	"
Knerr, C. B	Indianapolis	R	"
Knox, E. S	Indianapolis	R	"
Koch, Mrs. A. J	IndianapolisPM		"
Kolmer, John	Indianapolis	R	"
Krug, H. S	Indianapolis	R	"
Lail, J. H	IndianapolisPM		"
Lambert, J. A	Indianapolis	R	"
Langdon, H. K	Indianapolis	R	"
Larkin, E. F	Indianapolis	H	"
Larway, John L	Indianapolis	E	"
Lash, H. M	Indianapolis	R	"
Laycock, R. T	Indianapolis	E	"
Leach, Leon T	Indianapolis	R	"
Leathers, D. A	Indianapolis	R	"
Leatherman, A. L	Indianapolis	R	"
Leith, M. C	Indianapolis	R	"
Leonard, H. S	Indianapolis	R	"
Lewis, John I.	Indianapolis	R	"
Lewis, E. R	Indianapolis	R	"
Lewis, J. C	Indianapolis	E	"
Lewis, J. R	Indianapolis	R	"
Light, R. C	Broad Ripple	R	"
Lohrmann, H	Indianapolis	R	"
Long, John B	Indianapolis	R	"
Long, R. W	Indianapolis	R	"
Long, Henry	Indianapolis	E	"
Loughridge, J. E	Indianapolis	R	"
Lowry, C. O	Indianapolis	R	"
Ludlow, E	Indianapolis	R	"
Lukenbill, O. E	Indianapolis	R	"
Lutz, Geo. W	Indianapolis	R	"
Madson, Mary M	Indianapolis	E	"
Maddox, O. E	Indianapolis	H	"
Magel, Frank	IndianapolisPM		"

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Marion County—Continued.

Name.	*Postoffice.*	*School.*	*Basis of License.*
Malone, L. A	Indianapolis	R	NR
Malpas, S. H.	Indianapolis	NC	"
Manchester, J. J.	Indianapolis	R	"
Manker, F. E	Indianapolis	R	"
Mapes, S. H	Indianapolis	R	"
Marlott, C. L	Indianapolis	R	"
Martin, C. C	Indianapolis	R	"
Martin, Jno. A	Indianapolis	R	"
Marxer, C. W	Indianapolis	R	"
Masters, J. L	Indianapolis	R	"
Maxwell, Allison	Indianapolis	R	"
Mayhugh, Isaac	Indianapolis	R	"
McAlexander, R. O	Indianapolis	R	"
McCracken, A. J	Indianapolis	R	"
McClellan, A	Indianapolis	PM	"
McCulloch, C. B	Indianapolis	H	"
McCurdy, L. A	Indianapolis	R	"
McCurdy. O. B. C.	Indianapolis	R	"
McDonald, Wm. B.	Indianapolis	R	"
McGaughey, S	Irvington	R	"
McIvor, Flora	Indianapolis	R	"
McKenzie, J. W	Indianapolis	R	"
McLain, L. C	Indianapolis	R	"
McLeary, J. D	Indianapolis	R	"
McMahan, S W	Indianapolis	R	"
McNab, Philip	Indianapolis	R	"
McNaull, Chas	Indianapolis	R	"
McShane, J. T	Indianapolis	R	"
Mendenhall, C. W.	Indianapolis	R	"
Miller, Jos	Indianapolis	E	"
Moffett, W. C	Indianapolis	E	"
Moffett, E. D	Indianapolis	R	"
Molt, W. F	Indianapolis	NC	"
Molloy, W. J	Indianapolis	R	"
Morgan, Abrah'm.	Indianapolis	E	"
Morgan, Wm. V	Indianapolis	R	"
Morgan, Ralph	Indianapolis	R	"
Moore, S. H	Indianapolis	R	"
Moore, C M	Howland	R	"
Moore, Harry S	Indianapolis	R	"
Morris, Minor	Indianapolis	R	"
Morrison, F. A	Indianapolis	R	"
Morrow, J. E	Indianapolis	R	"
Mueller, Anton	Indianapolis	PM	"
Mullan, A. J	Indianapolis	R	"
Nash, G. W	Indianapolis	R	"
Neal, Jno. W	Indianapolis	E	"
Neff, Jno. A	Indianapolis	R	"
Nehrbas, John G	Indianapolis	R	"
Nichols, J. D	Indianapolis	R	"
Noble, Thos. B	Indianapolis	NC	"
O'Dell, Thos. A	Indianapolis	R	"
Ogle, Albert A	Indianapolis	H	"
Oliver, John H	Indianapolis	R	"
Osborn, Effa A	Indianapolis	PM	"
Ossenback, Wm	Indianapolis	R	"
Ostroff, Henry	Indianapolis	R	"
Outland, E. M	Indianapolis	PM	NR
Page, Lafayette	Indianapolis	R	"
Pantzer, H. O	Indianapolis	R	"
Park, H. A. S	Indianapolis	E	"
Parsons, Jno. S.	Indianapolis	E	"
Patterson, A. W	Indianapolis	R	"
Payne, A. D	Indianapolis	R	"
Payne, J. H	Julietta	R	"
Peachee, H	Indianapolis	R	"
Pendleton, Geo	Indianapolis	R	"
Peterson, W. B	Indianapolis	R	"
Pettijohn, B. B	Indianapolis	R	"
Pettijohn, O. B	Indianapolis	R	"
Pettijohn, F L	Indianapolis	R	"
Pickens, F. M	Indianapolis	R	"
Pfaff, O. G	Indianapolis	R	"
Pink, Hermann	Indianapolis	R	"
Pink, Julius	Indianapolis	R	"
Piscator, R. J	Indianapolis	R	"
Plasterer, P. C	Indianapolis	R	"
Philo, Daniel W	Indianapolis	R	"
Pool. Mary H	Indianapolis	R	"
Porter, E. D	Indianapolis	R	"
Potter, Theo	Indianapolis	NC	"
Poucher, C. H. C	Indianapolis	R	"
Pray, Frank M	Indianapolis	R	"
Prentiss, J. H. F	Indianapolis	R	"
Preston, A. L	Haughville	R	"
Pritchard, J. E	Indianapolis	R	"
Prunk, D. H	Indianapolis	R	"
Purman, S. B	Indianapolis	R	"
Rainey, H. W	Indianapolis	R	"
Ratliff, L. H	Lawrence	R	"
Ratliff, B	W. Newton	R	"
Ray, F. E	Indianapolis	R	"
Reade, J	Traders Point	R	"
Reading, G. O	Irvington	R	"
Records, Saul	Lawrence	R	"
Records, R. S	Lawrence	R	"
Reed, Wilson	Indianapolis	R	"
Rees, Omer H	Indianapolis	R	"
Reyer, E. C	Indianapolis	R	"
Reynolds. D. M	Indianapolis	R	"
Ridpath. H. W	Indianapolis	R	"
Riley, Chas C	Indianapolis	R	"
Ritter, C. L	Indianapolis	R	"
Roberts, A. S	Indianapolis	R	"
Robertson, J. F	Indianapolis	R	"
Robinson, W. B	Indianapolis	R	"
Rogers, Henry C	Indianapolis	R	"
Rogers, Rebecca W	Indianapolis	H	"
Root, Chas. C	Indianapolis	R	"
Ross, David	Indianapolis	R	"
Ross, Ren Orman	Indianapolis	R	"
Row, G. S	Indianapolis	R	"
Rowe, L. M	Indianapolis	R	"
Royse, Jas. G	Indianapolis	R	"

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Marion County—Continued.

Name.	*Postoffice.*	*School.*	*Basis of License.*
Runnels, Sollis	Indianapolis	R	NR
Runnels, O. S.	Indianapolis	H	"
Ruse, A. O	Clermont	R	"
Ryan, Wm. B.	Indianapolis	R	"
Saddler, Wm. C.	Indianapolis	R	"
Stafford, C. A.	IndianapolisPM		"
Salinger, S. F	Indianapolis	R	"
Sammons, Eva C.	Indianapolis	R	"
Saule, Sarah A.	Indianapolis	R	"
Seaman, J. B.	Indianapolis	R	"
Sedam, Marshal D.	Indianapolis	R	"
Seller, T. P.	Indianapolis	R	"
Selman, A. G.	Indianapolis	R	"
Servoss, Geo. L.	Indianapolis	R	"
Schorer, S. P.	Indianapolis	R	"
Schenck, Luella M	Indianapolis	R	"
Scott, J. T.	Indianapolis	R	"
Shaefer, C. K	Indianapolis	R	"
Shartess, A. A.	IndianapolisPM		"
Shetterly, Wm. R.	Indianapolis	R	"
Shreve, Eva	Indianapolis	E	"
Shreve, Franklin	Indianapolis	E	"
Siegfried, J. A	Indianapolis	E	"
Sigler, Geo. A.	Indianapolis	R	"
Sluss, Jno. W	Indianapolis	R	"
Smith, Earl C.	Indianapolis	E	"
Smith, Walter	IndianapolisPM		"
Smith, Martha I.	Indianapolis	R	"
Smith, Russell J.	Indianapolis	R	"
Smith, Alex. C.	Indianapolis	E	"
Smith, Bartley	IndianapolisPM		"
Smith, Mary	Indianapolis	R	"
Snyder, Aaron W.	Indianapolis	R	"
Snoke, David H.	IndianapoliPM		"
Snowden, Jesse	Indianapolis	R	"
Sommer, Edgar F.	Indianapolis	R	"
Spaulding, Jno.	Indianapolis	R	"
Spees, B. N. E.	Glenns Valley	R	"
Spencer, M. J.	Indianapolis	R	"
Spicer, J. W.	Acton	R	"
Spink, Mary A.	Indianapolis	R	"
Stanley, John M.	Indianapolis	R	"
Stephenson, J. C.	Indianapolis	R	"
Sterne, A. E.	Indianapolis	R	"
Stevens, O. T.	Indianapolis	R	"
Stewart, L C.	Indianapolis	E	"
Stewart, W. B.	Indianapolis	H	"
Stewart, F. C.	Indianapolis	H	"
Stillson, J. O.	Indianapolis	R	"
Stine, D. L	Indianapolis	R	"
Stockton, Sarah	Indianapolis	R	"
Stone, Mary C.	Indianapolis	R	"
Stone, R. F.	Indianapolis	R	"
Storch, L. A. E.	Indianapolis	R	"
Stotler, G. N.	Indianapolis	R	"
Stratford, Alfred	Indianapolis	R	"
Stuckey, Thos E	Indianapolis	R	"
Study, John M.	Indianapolis	R	NR
Sutcliffe, J. A.	Indianapolis	R	"
Swails, J. A.	Acton	R	"
Swain, Rachel	Indianapolis	R	"
Swain, Fremont	Indianapolis	R	"
Swisher, W. N.	Indianapolis	E	"
Talbott, Jno H	Indianapolis	R	"
Taylor, Jas. H.	Indianapolis	R	"
Taylor, O. S	Indianapolis	R	"
Teague, A. E.	Indianapolis	E	"
Teague, Mabel E.	Indianapolis	E	"
Tebault, Wm. P	Indianapolis	R	"
Terrell, B. J.	Irvington	R	"
Thomas, E. C	Indianapolis	R	"
Thomas, W. H	Indianapolis	R	"
Thomas, M. H.	Indianapolis	R	"
Thompson, E. C.	Indianapolis	H	"
Thompson, T. L.	Irvington	R	"
Thompson, J. L.	Indianapolis	R	"
Thompson, D. A.	Indianapolis	R	"
Thompson, R. R	Indianapolis	R	"
Tingley, W. Scott	Indianapolis	R	"
Tinsley, F. C	Indianapolis	R	"
Todd, L. L	Indianapolis	R	"
Todd, R. N.	Indianapolis	R	"
Tolley, Wm. G.	Indianapolis	R	"
Tomlin, W. S.	Indianapolis	R	"
Towles, A. N.	Irvington	R	"
Trees, I. W	Indianapolis	R	"
Trenary, D. F.	Julietta	R	"
Tucker, G. W	Indianapolis	R	"
Tucker, T. C.	Ben Davis	E	"
Turner, H. E.	Indianapolis	R	"
Twichell, Alice E.	IndianapolisPM		"
Vincent, E. B.	Indianapolis	R	"
Van Hummell, H.	Indianapolis	R	"
Van Hummell, Q.	Indianapolis	R	"
Van Osdel, J. W	Indianapolis	R	"
Vincent, S. R	Indianapolis	H	"
Vincent, Edwin B.	Indianapolis	R	"
Wadsworth, A	Castleton	R	"
Wagner, Theo. A.	Indianapolis	R	"
Waide, Robert	IndianapolisPM		"
Walker, Isaac C	Indianapolis	R	"
Wall, David	Indianapolis	R	"
Walters, P. J	Indianapolis	R	"
Wands, Wm	Indianapolis	R	"
Ward, Jas. N.	IndianapolisPM		"
Ward, A. O	Indianapolis	R	"
Ward, C. L	Cumberland	R	"
Weer, H. H.	Indianapolis	R	"
Weiss, E. G.	Indianapolis	R	"
Welmann, E. A.	Indianapolis	H	"
Wells, M. M.	Indianapolis	R	"
Westover, R. L	Indianapolis	R	"
White, A. R.	Indianapolis	R	"
White, Samuel S.	IndianapolisPM		"

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Marion County—Continued.

Name.	Postoffice.	School.	Basis of License.
White, Wm. C.	Indianapolis	R	NR
Wiggins, E. L.	Indianapolis	R	"
Wiles, F. M	Indianapolis	R	"
Williams, Wm. N.	Indianapolis	R	"
Williams, W. O.	Indianapolis	R	"
Williams, M. A.	Indianapolis	R	"
Williams, J. L	Indianapolis	R	"
Williams, M. H.	Indianapolis	R	"
Williams, Jas. R.	Indianapolis	R	"
Wilmans, F. A.	Indianapolis	R	"
Wilson, C. A	Indianapolis	R	"
Wilson, C. L	Indianapolis	R	"
Wilson, J. F	Indianapolis	R	"
Winter, Carl G.	Indianapolis	E	"
Wishard, John G.	Indianapolis	R	"
Wishard, Ernest E.	Indianapolis	R	"
Wishard, W. H.	Indianapolis	R	"
Wishard, W. N.	Indianapolis	R	"
Witham, S. L	Indianapolis	R	"
Witt, Lazarus	Indianapolis	R	NR
Wolford, C. T	Indianapolis	R	"
Wood, Noah S	Indianapolis	R	"
Wood, Levi	Indianapolis	E	"
Woodard, N L.	Indianapolis	PM	"
Woodburn, J. H	Indianapolis	R	"
Woodburn, Fred'k	Indianapolis	R	"
Woollen, G. V	Indianapolis	R	"
Wright, Frank M.	Indianapolis	E	"
Wright, George	Indianapolis	PM	"
Wright, W. M	Indianapolis	R	"
Wright, C. E.	Indianapolis	R	"
Wylie, B. M.	Indianapolis	R	"
Wynn, F. B	Indianapolis	R	"
Yoke, Chas	Bridgeport	R	"
Young, W. L.	Indianapolis	E	"
Young, T. J.	Indianapolis	R	"
Young, M. A	Indianapolis	R	"
Zitzlaff, C. J	Indianapolis	R	"

Regular, 489; Eclectic, 53; Homeopathic, 35; Physio-Medical, 40; not reported, 12. Total, 629.

Marshall County.

Name.	Postoffice.	School.	Basis of License.
Aspinall, N. B	Plymouth	R	D
Bell, John F	Inwood	R	10 yrs.
Borton, T. A	Plymouth	R	"
Bower, Isaiah	Plymouth	R	"
Brown, Chas. A	Plymouth	H	D
Caple, Alfred Z	Maxinkuckee	R	"
Cunningham, W. R	Bourbon	R	"
Church, Isaac W.	Bremen	R	"
Doke, John T	Argos	R	10 yrs.
Eidson, J. Wm	Bourbon	R	D
Eley, L. D	Plymouth	R	"
Gould, S. W	Argos	R	"
How, John T.	Bremen	H	"
Hollister, Geo. S.	Culver	R	"
Holtzendorff A. C	Plymouth	R	"
Holtzendorff, C. F.	Plymouth	R	"
Harris, Cyrus M	Bourbon	R	"
Johnson, Luther	Bourbon	R	"
Kizer, James H.	Inwood	R	"
Kaszer, Jacob	Plymouth	R	"
Knott, D. C	Plymouth	E	"
Kendall, John T.	Argos	R	"
Loring, Samuel C.	Burr Oak	R	"
Lindquist, Nils S.	Plymouth	H	"
Martin, J. S.	Plymouth	H	"
Matchett, A C	Bourbon	R	10 yrs.
Moore, Chas. W	Teegarden	R	D
Nusbaum, C. E.	Bremen	R	"
Neville, R.	Teegarden	R	10 yrs.
Oyler, Wm. A.	Argos	R	"
Parks, John P	Bourbon	R	D
Pagel, Chas. W	Argos	E	
Pocock, Elias H	Walnut	R	10 yrs.
Rannells, W. S.	Argos	R	D
Reynolds, Geo. R.	Plymouth	R	"
Richey, Samuel R.	Donaldson	R	10 yrs.
Rea, Oliver A	Culver	R	D
Ringle, T F.	Tippecanoe	PM	
Sarber, Wallace C.	Argos	R	D
Spencer, J. L	Tippecanoe	R	10 yrs.
Stevens, A. E	Maxinkuckee	R	
Smith, John W.	Plymouth	R	D
Smith, T. D	Bremen	E	"
Smith, Flora W.	Bremen	E	"
Stephens, R C.	Plymouth	R	"
Tallman, H. H	La Paz	R	"
Wiseman, B. W. S.	Culver	R	"
Wahl, Geo. F.	Bremen	R	"
Wagner, Albert L.	La Paz	R	"
Weiser, W. A	Bourbon	PM	
Weiser, D. D.	Tyner	PM	

Regular, 40; Eclectic, 4; Homeopathic, 4; Physio-Medical, 3. Total, 51.

Martin County.

Name.	Postoffice.	School.	Basis of License.
Brittain, S. H	Loogootee	R	D
Dooley, M. M	Loogootee	R	"
Dollins, T. C	Trinity	R	10 yrs.
Freeman, G. M	Shoals	R	D
Hays, T. A	Burns City	R	"
Long, Ed. E.	Shoals	R	"
Plummer, I. Nutt.	Shoals	R	"
Porter, A. W	Loogootee	E	D
Robinson, G. M.	Loogootee	R	10 yrs.
Sherwood, W. C.	Loogootee	R	D
Shirley, H. W	Shoals	R	"
Sims, J. N.	Dover Hill	E	10 yrs.
Trueblood, J. C.	Loogootee	R	D
Wright, B. C	Indian Spr'gs.	R	"

Regular, 12; Eclectic, 2. Total, 14.

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Miami County.

Name.	*Postoffice.*	*School.*	*Basis of License.*
Andrews, E. H	Peru	R	D
Armstrong, W. K	Peru	R	
Bacon, D. W	Peru	R	
Bakehorn, L M	Peru	PM	D
Baldwin, C. A	Amboy	H	"
Baldwin, M. C	Converse	E	"
Boggs, M. M	Macy	R	"
Brenton, W. H	Peru	R	"
Bloomfield, E. M	Peru	R	"
Brower, Josiah	Gilead	E	"
Carl, Ohmer	Waupecong	R	"
Crockett, H. E	Chili	R	"
Darnell, H. J	Denver	R	"
Eikenberry, A. A	Peru	H	"
Eikenberry, B. F	Peru	H	"
Foust, P. G	Santa Fe	R	"
Frazee, J. A	Bunker Hill	R	"
Fretz, John	Deedsville	R	"
Griswold, E. H	Peru	R	"
Haas, H. C	Peru	H	"
Haifley, W. H	Amboy	R	"
Hardman, R. H	Converse	R	"
Henderson, S. T	Amboy	R	"
Helm, C. J	Peru	R	"
Houser, E. K	Amboy	R	"
Ijams, Thos. F	North Grove	R	"
Kalbfleisch, A. H	Peru	H	"
Keim, P. S	Mexico	R	"
Kelsey, Thos. W	Converse	R	"
Kimball, M. C	Converse	R	D
Magruder, J. W	Peru	R	"
Malsbury, J. O	Peru	R	"
Malsbury, L. O	Peru	R	"
McDowell, H. P	Peru	R	"
Meek, J. A	Bunker Hill	R	"
Metz, I. W	Peru	R	"
Newell, J. W	Denver	R	"
Norris, W. N	Miami	R	"
Osborn, E. A	Peru	R	"
Peters, J. B	Macy	R	"
Piper, H. M	Denver	H	"
Passage, H. V	Peru	R	"
Ridenour, D. C	Peru	R	"
Rutherford, C. E	Peru	H	"
Schouse, Ch	Peru	R	"
Shreve, Franklin	Peru	R	"
Smith, A F	Waupecong	R	"
Spooner, Jared	Peru	R	"
Swift, Ed. D	Macy	R	"
Taylor, Claire	Peru	R	"
Wainscott, C. O	Peru	R	"
Ward, J. O	Peru	R	"
Warham, J. W	Gilead	R	"
Wallace, S. L	Bunker Hill	R	"
Wilson, J. W	Macy	E	"
Wilson, H. T	Bunker Hill	R	"
Yarling, J. E	Peru	R	"

Regular, 46; Eclectic, 3; Homeopathic, 7; Physio-Medical, 1. Total, 57.

Monroe County.

Abbott, Vano	Bloomington	E	D
Baker, J. V	Harrodsburg	R	"
Farr, A. C	Bloomington	R	10 yrs.
Fritch, Joseph	Unionville	R	"
Gardner, Fletcher	Bloomington	R	D
Harris, John E.	Bloomington	R	"
Harris, C. Edward	Bloomington	R	"
Harris, Walter W	Ellettsville	R	"
Harris, Oliver K.	Ellettsville	R	"
Hacker, W. P	Bloomington	R	10 yrs.
Hazel, James T	Whitehall	R	D
Hamilton, H. C. J	Clear Creek	R	"
Holland, P. C	Bloomington	R	"
Hon, Ulrich H	Bloomington	R	"
Hon, Amzi W	Bloomington	R	"
Holtzman, W. R	Stinesville	R	"
Judah, M. T	Gent	R	10 yrs.
Kentling, Jos	Smithville	R	D
Lowder, L. T	Bloomington	R	D
Luzadder, J. E	Smithville	R	"
Munson, Geo. H	Stanford	R	"
Potts, John F	Bloomington	R	"
Presley, I. N	Ellettsville	E	"
Rice, N. L	Bloomington	E	"
Rogers, Otto F	Bloomington	R	"
Schaffer, Geo. C	Bloomington	R	"
Spencer, A C	Stinesville	R	"
Threlkeld, J. H	Gent	PM	10 yrs.
Tourner, John P	Bloomington	R	"
Tourner, Frank F	Bloomington	R	D
Weir, R. M	Bloomington	R	"
Weir, Chas. T	Bloomington	R	"
Wiltshire, J. W	Bloomington	H	"
Whitted, Wm. L	Bloomington	R	"
Whitted, F. F	Bloomington	E	"

Regular, 29; Eclectic, 4; Homeopathic, 1; Physio-Medical, 1. Total, 35.

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Montgomery County.

Name.	Postoffice.	School.	Basis of License.
Allhands, F. D	Wingate	R	L
Ball, T. Z	Waveland	R	"
Barcus, Paul J	Crawfordsville	R	"
Beatty, J. L	New Market	R	"
Bounnell, H. M	Waynetown	R	"
Bowers, Homer	New Ross	E	"
Bailey, C. L	Darlington	H	"
Bronough, C. T	New Ross	R	"
Brown, L. L	Kirkpatrick	R	"
Brown, L. F	Alamo	R	"
Brown, I. L	Alamo	R	"
Burroughs, W. H	Shannondale	R	"
Carter, N. M	Crawfordsville	E	"
Chambers, W. B	Crawfordsville	H	"
Claypool, J. S	Waynetown	R	"
Cowan, E. H	Crawfordsville	R	"
Coyner, L. M	Waveland	R	"
Davidson, J. F	Crawfordsville	R	"
Dennis, F. A	Crawfordsville	R	"
Detchon, E	Crawfordsville	R	"
Detchon, I. A	Crawfordsville	R	"
Dewey, George W	Crawfordsville	R	"
Dickerson, J. W.	Wingate	E	"
Duncan, J. R	Crawfordsville	E	"
Dunnington, R. C.	Darlington	R	"
Eddingfield, G. W	Crawfordsville	R	"
Ensminger, S L	Crawfordsville	R	"
Elliott, John W	Linden	R	"
Etler, J. R	Crawfordsville	R	"
Fall, W. D	Whitesville	R	"
Gerard, R. H	Crawfordsville	R	"
Gott, W. T	Crawfordsville	H	"
Green, W. H	Darlington	R	"
Greene, H. E	Crawfordsville	R	"
Griffith, T. J	Crawfordsville	R	"
Griffith, M. E. H	Crawfordsville	R	"
Griffith, Barton	Alamo	R	NR
Hamilton, A. W	Waynetown	R	L
Hamilton, R. J	Darlington	R	"
Hamilton, R. A	Linden	E	"
Hill, H. C	Darlington	R	"
Hurt, W. J	Waynetown	R	L
Hutchings, B. F	Crawfordsville	R	"
Hyten, W. H	Parkersburg	R	"
Irwin, S. G	Crawfordsville	R	"
Jones, O. H	Crawfordsville	R	"
Keegan, E. W	Crawfordsville	R	"
King, R. F	New Ross	R	"
Kleiser, A. J	Waveland	R	"
Layne, P. M	Crawfordsville	E	"
Lidikay, C. J	Ladoga	R	"
Loof, A. L	Waveland	R	"
Lofland, W. A	Linden	R	"
Lynn, F. M	New Richmond	R	"
Mahorney, J. C	Ladoga	H	"
Niven, John S	Crawfordsville	R	"
Olin, L. W	Elmdale	R	"
Peacock, S. R	Ladoga	R	"
Peacock, N. F	Darlington	R	"
Price, E. V	Ladoga	R	"
Riley, Chas	Mace	E	"
Ristine, W. H	Crawfordsville	R	"
Shonkwiler, F. M.	New Market	R	"
Sigmond, H. W	Crawfordsville	R	"
Swope, A. A	Crawfordsville	R	"
Steele, W. D	Alamo	R	"
Straghan, J. W	Parkersburg	R	"
Straghan, K. K	Waveland	R	"
Swank, W. G	Crawfordsville	R	"
Talbott, J. N	Crawfordsville	R	"
Taylor, J. N	Crawfordsville	H	"
Tilney, W. D	Crawfordsville	E	"
Utter, J. A	Crawfordsville	H	"
Walden, C. H	New Market	R	"
Ware, W. H	Bowers	R	"
Washburn, D. M	New Richmond	R	"
Whitenack, J. H	Crawfordsville	R	"
Williams, G. T	Browns Valley	R	"
Wilson, J. B	Ladoga	R	"
Young, Dudley	Pawnee	R	"
Youngkin, J. N	Wingate	E	"

Regular, 66; Eclectic, 9; Homeopathic, 6. Total, 81.

Morgan County.

Blackstone, B. D	Martinsville	R	D
Banta, Wm. C	Martinsville	R	10 yrs.
Branham, J	Paragon	E	L
Brackney, M. F	Mooresville	R	"
Breedlove, Geo. B.	Brooklyn	R	"
Bradley, John S	Hall	R	"
Divens, Chas. W.	Wilbur	R	"
Dewees, W. L	Mooresville	R	"
Farr, Uriah H	Paragon	R	"
Green, E. V	Martinsville	R	"
Gravis, C. M	Martinsville	R	"
Griffitt, Reuben C.	Morgantown	R	"
Griffitt, Harry J	Morgantown	R	L
Grim, J. G	Waverly	R	"
Henson, Theo	Martinsville	R	"
Holladay, Thos. F.	Mooresville	R	"
Horton, F. W	Monrovia	R	"
Hubbard, W. H	Monrovia	R	"
Hendricks, W. E	Martinsville	R	"
Hibbs, Irwin	Martinsville	R	"
Hill, W. D	Martinsville	H	"
Hylton, Allen J	Mooresville	R	"
Jones, H. C	Hall	R	"
Jones, R. E	Hall	R	"

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Morgan County—Continued.

Name.	*Postoffice.*	*School.*	*Basis of License.*
Kennedy, D. P	Martinsville	E	L
Kennedy, John	Paragon	E	"
Knight, Jas. H	Morgantown	R	"
Kessinger, C. A	Martinsville	R	"
Kelso, E E	Eminence	R	"
Lindley, C. M	Brooklyn	R	L
Landes, B. F	Martinsville	E	"
Monical, G. S	Martinsville	R	"
Murphy, Wm. H.	Morgantown	R	"
McCormick, M. S	Eminence	R	"
Maxwell John H	Martinsville	R	"
Maxwell, Frank R.	Martinsville	R	"
Magenheimer, V. A	Waverly	R	"
McClure, Chas. A	Crown Centre	R	"
McElwee, Harry	Martinsville	R	"
Pectol, Chas. F	Alaska	R	"
Reagan, A. W	Mooresville	R	"
Robbins, Clark	Mooresville	R	L
Robinson, H. C	Martinsville	R	"
Seaton, Chas	Martinsville	R	"
Seaton, Guy	Martinsville	R	"
Sweet, E. M	Martinsville	R	"
Sims, J. A	Alaska	R	"
Smith, C. F	Brooklyn	R	"
Spoor, John S	Brooklyn	R	"
Tilford, A. Salem	Martinsville	R	"
Tilford, Benj. W	Martinsville	R	"
Thompson, Wm. L.	Mooresville	R	"
Turner, James A	Martinsville	R	"
VanSant, W. P	Brooklyn	R	"
Williams, K. H	Cope	R	"
Wellins, Sarah E.	Martinsville	E	"
Williamson, R. B.	Paragon	R	"
Wharton, J. O	Exchange	R	"

Regular, 52; Eclectic, 5; Homeopathic, 1. Total, 58.

Newton County.

Chaffee. J. C. M	Brook	H	
Clymer K	Goodland	E	
Collier, T. E	Brook	R	
Godfrey, L. M	Kentland	H	
Hatch, J. A	Kentland	R	
Humstone, M. L.	Goodland	R	
Kinneman, J. G.	Goodland	R	
Leedom, H. F	Morocco	R	
McCain, R. C	Kentland	R	
Martin, John T	Mt. Ayr	H	
Merry, J. W	Mt. Ayr	R	
Miller, C. A	Kentland	R	
Pratt, B. W	Goodland	R	
Prough, Wm. C	Goodland	R	
Recker, L. H	Morocco	R	
Salisbury, W. H	Morocco	R	
Smith, Geo. B	Brook	R	
Smith, Karl H	Morocco	R	
Torplett, C. E., Sr	Morocco	R	
Torplett, C. E, Jr	Morocco	R	
Wescott, Jos. B	Goodland	H	

Regular, 16; Eclectic, 1; Homeopathic, 4. Total, 21.

Noble County.

Black, Frank W.	Ligonier	R	D
Bowker, J. J	LaOtto	R	"
Carver, W. F	Albion	R	"
Coyner, A. G	Kendallville	R	"
Depew, Ezra W	Wolf Lake	R	10 yrs.
Dunlap, Robt	Kendallville	E	"
Franks Wm H	Ligonier	R	D
Gants, John	Cromwell	E	
Gierman, Wm. L	Rome City	R	"
Gilbert, J. L	Kendallville	R	"
Green, Thos. C	Albion	R	"
Green, Wm. T	Albion	R	"
Goodwin, C. B	Kendallville	R	"
Hardy, C. F	Kendallville	H	"
Hays, John W	Albion	R	"
Johnson, W. A	Wawaka	R	"
Kester, A. A	Wolcottville	H	"
Knepper, E. W	Ligonier	R	"
Lemmon, S. W	Albion	R	"
Luckey, Jas. E	Wolf Lake	R	"
Maloney, F. C	Avilla	R	"
Miller, B. E	Albion	R	D
Mitchell, W. R	Ligonier	R	"
Moore, N. B	Noblesville	R	10 yrs.
Morr, J. W	Albion	R	D
Nifer, F. J	Brimfield	E	"
Nye, John H	Cromwell	R	"
Reiff, N. G	Albion	H	"
Reynolds, F. A	Kendallville	R	"
Schlotterback, E. L.	Ligonier	R	10 yrs.
Seymoure, C. A	Wawaka	R	D
Shobe, W. A	Ligonier	R	"
Shook, N. J	Kendallville	R	"
Stroup, N. J	Rome City	R	"
Veazey, W. M	Avilla	R	"
Teal, Geo. A	Kendallville	R	"
Tucker, H. G	Cromwell	R	10 yrs.
Whippy, Geo. A	Ligonier	H	D
Williams, W. S	Kendallville	R	"
Woodruff, C. A	Ligonier	R	"
Wilson, D. C	Kendallville	E	"

Regular, 33; Eclectic, 4; Homeopathic, 4. Total, 41.

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Ohio County.

Name.	*Postoffice.*	*School.*	*Basis of License.*
Elfers, John	Rising Sun	R	D
Ellis, P. C	Rising Sun	R	"
Ford, O. P. M	Rising Sun	R	"
Long, H. P	Laughrey	R	"
Rockafellow, W. A	Laughrey	E	D
Stevenson, G. A	Rising Sun	R	"
Sullivan, W. H	Rising Sun	R	"

Regular, 6; Eclectic, 1. Total, 7.

Orange County.

Baker, R. E	Orleans	R	D
Boaty, G. S	Helix	R	"
Boyd, Chas. L	Paoli	R	"
Gilliatt, Wm. B	Youngs Cr'k	R	"
Hammond, F. E	Helix	R	"
Hassenmiller, M	West Baden	R	"
Hazlewood, G	Chambersb'g	R	"
Holaday, R. L	Newt. Stew'rt	R	"
Howard, J. L	French Lick	R	"
Hunt, F. P	Leipsic	R	10 yrs.
Johnson, John R	Obi	E	D
Kochenour, W. P	Rego	R	"
Lang, John W	Nalene	R	10 yrs.
Laughlin, E. D	Orleans	R	D
Laughlin, C. E	Orleans	R	"
Lindenbarger, I	French Lick	R	"
Lindley, Laban	Paoli	R	"
Lingle, Samuel L.	Paoli	R	D
Mayer, Henry P	Youngs Cr'k	R	"
McDonald, John	Valeene	R	"
Montgomery, J. W	Paoli	R	"
Patton, Wm. F	Orleans	R	"
Patton, W. H	Orleans	R	"
Pennington, W. D.	French Lick	R	"
Ritter, H. O	Orangeville	R	"
Ritter, John A	West Baden	R	"
Ritter, T. B	Orangeville	R	"
Ryan, Wm. E	French Lick	R	"
Sloan, Wm. W	French Lick	R	"
Smith, E. A	Newt. Stew't	R	"
Smith, J. H	Newt. Stew't	R	10 yrs.
Stewart, O. H	Syria	H	D
Toliver, J. A	French Lick	R	"

Regular, 31; Eclectic, 1; Homeopathic, 1. Total, 33.

Owen County.

Cox, N. D	Spencer	R	D
Coble, Jacob	Spencer	R	"
Davis, Wm. M	Coal City	R	"
Denke, Walter	Spencer	R	"
Fox, H A	Gosport	R	"
Fisher, B. T	Spencer	R	"
Gantz, Thomas	Freedom	R	L
Gray, O. F	Spencer	R	D
Hodges, W. A	Freedom	R	"
Hickam, Wilford	Spencer	R	"
Hixon, Wm. H	Farmer	E	L
Jones, Jesse M	Cataract	R	"
Kennedy, A. C	Patricksburg	R	D
Light, Fred C	Freedom	E	"
Light, W. E	Freedom	E	"
Livingston, J. J	Freedom	E	L
Maddox, W. B. S	Vandalia	R	"
McDonald, D. H	Quincy	R	D
McKelvey, S. R	Patricksburg	R	D
Osgood, H. G	Gosport	E	"
Pierson, Allen	Spencer	R	"
Plew, John H	Freedom	E	L
Pritchard, C. A	Gosport	R	D
Rice, Wm. H	Spencer	R	L
Richards, S. D	Patricksburg	R	D
Smith, John W	Gosport	R	"
Sloan, John N	Spencer	R	"
Sandy, Wm. J	Gosport	R	"
Schell, F. A	Spencer	E	"
Stucky, John M	Gosport	R	"
Stucky, Fred V	Gosport	R	"
Williams, F. A	Cuba	R	"
Williams, J. A	Patricksburg	R	L
Wooden, J	Gosport	R	"
Yocum, Boaz	Coal City	R	D

Regular, 28; Eclectic, 7. Total, 35.

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Parke County.

Name.	*Postoffice.*	*School.*	*Basis of License.*
Boyd, James M	Annapolis	R	D
Bennell, Charles	Diamond	R	"
Baldridge, Ezra R.	Rosedale	E	"
Cone, James	Montezuma	R	"
Crooks, James	Bridgeton	E	"
Campbell, Annie B.	Rockville	E	"
Deverter, Geo. T.	Waterman	R	"
Davis, W. S.	Marshall	R	"
Evans, Everett M.	Mecca	H	"
Farver, Geo. W	Montezuma	R	"
Gillum, W. H	Rockville	R	"
Garrigus, John J	Tangier	R	10 yrs.
Goss, Marion	Rockville	R	D
Hanlon, Elizabeth.	Diamond	R	10 yrs.
Hester, Robert F.	Bloomingdale	R	D
Hester, Laura	Bloomingdale	R	"
Hudson, B. F	Montezuma	R	"
Jacks, James R	Catlin	E	"
Lynch, Joel Y	Rosedale	R	"
McKey, R. H. W	Lusks Springs	R	10 yrs.
Morris, C. C	Rockville	R	D
Mater, Jacob D	Bridgeton	R	D
Martin, Alonzo	Bellmore	R	"
Maddox, Orion E.	Rockville	H	"
Myers, J. G. L	Bloomingdale	R	"
Norman, James I.	Parkville	R	"
Powell, Beecher B.	Marshall	E	"
Price, Wm. S.	Tangier	R	10 yrs.
Peare, R. C.	Bellmore	R	D
Passmore, Jane	Annapolis	R	10 yrs.
Rosenkrans, H. R.	Bridgeton	E	D
Reed, D. E. P.	Portland Mills	R	"
Reeder, Joseph C.	Montezuma	E	"
Rogers, Henry C.	Rockville	R	"
Shepherd, John P.	Judson	R	"
Stewart, H. W	Rosedale	R	"
Siner, F. M.	Diamond	R	"
Woody, Geo. C	Annapolis	R	10 yrs.
Welch, John A	Lena	R	D
Wheat, W. W.	Mecca	E	"
Woodard, M. F	Bloom'gdale	PM	"

Regular, 30; Eclectic, 8; Homeopathic, 2; Physio-Medical, 1. Total, 41.

Perry County.

Bennett, J. B	Derby	R	10 yrs.
Brucker, C. M	Tell City	R	"
Canavan, J. W	St. Croix	R	"
Cluthe, Wm	Tell City	R	"
Cox, C. E	Cannelton	R	"
Dome, David C	Troy	R	"
Eads, Thos. D	Cannelton	R	"
Evans, F. A	Tell City	R	"
Foster, A. O	Uniontown	R	"
Hargis, W. T	Derby	R	D
Hendershot, C. T.	Cannelton	R	"
Hend'kson, A M.D	Magnet	R	10 yrs.
Howard, W. R	Troy	R	"
Hutchason, R. H.	Cannelton	R	D
Ladd, J. W	Cannelton	R	10 yrs.
Lee, J. H	Rome	R	"
Lomax, Wm	Bristow	R	D
Mason, C. H	Tell City	R	10 yrs.
Moraweck, Ernest.	Tell City	R	D
Muelchi, Wm. H.	Tell City	R	10 yrs.
Ripperdan, J. H	Magnet	R	"
Shriefer, J. H	Prospero	R	"
Speedy, W. S	Branchville	R	"
Taylor, J. E	Leopold	R	D
Wedding, M. F.	Rome	R	10 yrs.
White, David	Tobinsport	R	D
White, M. M	Bristow	R	"

Regular, 27. Total, 27.

Pike County.

Abbott, Clarence	Otwell	R	D
Adams, J. R	Petersburg	R	"
Atkinson, Edw	Oatsville	R	"
Basinger, T. W	Petersburg	R	"
Beardsley, J. M	Winslow	R	"
Bethell, W. J	Winslow	E	10 yrs.
Blythe, W. T	Glezen	R	"
Burger, J. R	Petersburg	R	D
Chumbley, S. R	Arthur	R	"
Clark, S. R	Otwell	R	"
Clifford, A. C	Glezen	R	"
Coleman, J. W	Union	R	"
Collins, Sarah	Velpen	NR	10 yrs.
Corn, Nathaniel	Augusta	R	D
Demott, W. M	Otwell	R	D
DeTar, D	Winslow	R	10 yrs.
Godwin, J. W	Otwell	H	"
Harris, R. W	Algiers	R	D
Harrison, Jas. A	Spurgeon	R	10 yrs.
Hatfield, B. F	Union	R	D
Hilsmeyer, L. H	Stendal	R	"
Hilsmeyer, F. E	Velpen	R	"
Howard, M. A	Velpen	NR	10 yrs.
Hunter, W. M	Petersburg	R	D
Imel, E. S	Algiers	R	"
Kime, J. T	Petersburg	R	"
Lamar, I. H	Petersburg	E	"
Link, W. H	Petersburg	R	"

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Name.	*Postoffice.*	*School.*	*Basis of License.*	*Name.*	*Postoffice.*	*School.*	*Basi Lice*
Logan, A. R.	Algiers	R	D	Rice, T. R	Petersburg	H	I
McGlasson, J. D	Augusta	R	"	Schenck, H. F	Oatsville	R	'
Miller, M. N	Velpen	R	"	Smith, J. T	Glezen	R	10 y
Osborn, W. R	Spurgeon	R	"	Stork, J. H	Stendal	R	I
Oxby, M. E	Spurgeon	NR	10 yrs.	Teaford, S. F	Spurgeon	R	'

Regular, 31; Eclectic, 2; Homeopathic, 2; not reported, 3. Total, 38.

Porter County.

Ansley, Charles	Valparaiso	H	D	Letherman, A. P	Valparaiso	R	'
Balls, E. J	Valparaiso	R	"	Loring, D. J	Valparaiso	R	'
Beer, H. M	Valparaiso	R	"	McCarthy, J. F	Valparaiso	R	'
Blount, R. D	Valparaiso	R	"	McMichael, O. W	Wheeler	H	'
Boner, M. C	Hebron	R	"	Noland, P. D	Kouts	R	'
Carson, J. C	Valparaiso	R	"	Ryan, J. A	Valparaiso	E	'
Edmonds, E. A	Hebron	H	"	Sassaman, F. W	Valparaiso	R	'
Elliott, L. W	Valparaiso	H	"	Theorell, John J	Porter	H	'
Freeman, B. B	Valparaiso	H	"	Vincent, A. W	Valparaiso	E	'
Hockett, C. P	Kouts	E	"	Warren, C. L	Chesterton	R	'
Johnson, C. H	Chesterton	R	"	Wilfany, C. O	Chesterton	R	'
Kelly, Luke H	Chesterton	R	"	Wilson, J. R	Hebron	R	'
Ketchum, F. G	Valparaiso	H	"	Wood, O. S	Valparaiso	E	'
Krausgrill, D	Chesterton	R	"	Yohn, Edwin F	Hebron	R	'

Regular, 17; Eclectic, 4; Homeopathic, 7. Total, 28.

Posey County.

Arburn, Charles	Wadesville	R	D	Lockhart, T. L	New Harmony	E	N
Brydon, J. F	Griffin	R	"	Murphy, C. F	Griffin	R	'
Cremeens, Wm. C	Hovey	E	NR	Miller, W. L	West Franklin	R	'
Casby, L. B	Cynthiana	R	"	Powell, J. W	Mt. Vernon	R	'
Doerr, John E	Mt. Vernon	R	"	Peckinpaugh, G. R	Mt. Vernon	R	'
Emmick, Thos. C	Mt. Vernon	R	"	Runcie, G. U	Poseyville	R	'
Fullenwider, C. H	Mt. Vernon	R	"	Rawlings, S. O	New Harmony	R	'
Flucks, Carl	St. Wendel	R	"	Ramsey, D. C	Mt. Vernon	R	'
Grim, Simon	St. Philips	R	"	Spencer, E. V	Mt. Vernon	R	'
Glaze, J. M	New Harmony	R	"	Sugg, H. H	Mt. Vernon	E	'
Goodwin, E. J	Springfield	R	"	Smith, G. C	Poseyville	R	'
Gudgel, J. E	Cynthiana	R	"	Smith, A. C	Mt. Vernon	H	'
Hardwick, R. L	Mt. Vernon	R	"	Stormont, R. M	Stewartsville	R	'
Hall, T. J	Mt. Vernon	R	"	Stallings, F. L	Caborn	R	'
Hoggatt, W. W	Oliver	R	"	Turman, I. L	Cynthiana	R	'
Hensler, E. H. C	Hensler	R	"	Welch, D. W	Mt. Vernon	R	'
Harper, John	Mt. Vernon	R	"	Wilson, T. W	New Harmony	R	'
Holton, W. M	New Harmony	R	"	Whiting, U. G	Wadesville	R	'
Henderson, S. C	St. Philips	R	"	Welborn, G. W	Stewartsville	R	'
Hicks, C	Mt. Vernon	R	"	Wilson, R. E	Solitude	R	'
Hasting, W. E	Mt. Vernon	R	"				

Regular, 37; Eclectic, 3; Homeopathic, 1. Total, 41.

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Pulaski County.

Name.	*Postoffice.*	*School.*	*Basis of License.*	*Name.*	*Postoffice.*	*School.*	*Basis of License.*
Buck, G. L	Star City	PM	NR	Moss, D. F	Winamac	R	NR
Calison, H. C	Pulaski	E	"	Moss, W. C	Winamac	R	"
Hamilton, Robert	Medaryville	E	"	Misener, H. E	Monterey	PM	"
Houser, S. K	Winamac	E	"	Sharrer, J. C	Francesville	R	"
Jones, H. G	Medaryville	R	"	Stevens, H. C	Star City	PM	"
Jones, J. J	Medaryville	R	"	Thomas, J. J	Winamac	R	"
Kelsey, T. W	Francesville	R	"	Thompson, G. W	Winamac	R	"
Kelsey, W. C	Monterey	R	"	Thompson, W. H	Winamac	R	"
Kelsey, Wm	Monterey	R	"	Washburn, G. W	Star City	E	"

Regular, 11; Eclectic, 4; Physio-Medical, 3. Total, 18.

Putnam County.

Allen, Chas. A	New Maysville	R	D	Hamilton, R. A	Cloverdale	E	L
Ayler, Amos E	Greencastle	H	"	Hurst, E. M	Cloverdale	R	D
Bastin, J. V	Belle Union	R	L	King, J. M	Greencastle	R	L
Bence, Geo. W	Greencastle	R	"	McClure, S. W	Cloverdale	R	"
Bilbo, J. W	Russellville	R	"	Moore, A. H	Clinton Falls	R	"
Brasier, Thos. F	Greencastle	R	"	Moore, Chas. E	Russellville	R	"
Colliver, R. T	Bainbridge	E	"	Mullinix, P	Cloverdale	R	"
Colline, C. C	Roachdale	R	D	New, Y. N	Barnard	R	"
Conn, Wm. D	Bainbridge	R	L	O'Brien, Chas. A.	Fillmore	R	"
Cully, John F	Bainbridge	R	"	Preston, Jos. L	Greencastle	R	"
Evans, Ezra B	Greencastle	R	"	Prichard, W. K	Cloverdale	R	"
Gillespie, Jos. T	Reelsville	R	"	Stanley, Logan	Fincastle	R	"
Hanna, Levi M	Greencastle	R	"	Stroube, Chas. N.	New Maysville	R	"
Fulkerson, C. D	Belle Union	R	"	Summers, Wm. T.	Raccoon	R	"
Harvey, J. W	Russellville	R	"	Taylor, Mary J	Greencastle	H	"
Hawkins, Eugene	Greencastle	R	"	Tucker, W. W	Greencastle	R	"
Horn, Amos H	Putnamville	R	"	Wright, U. A	Mt. Meridian	R	D
Hutcheson, W. R	Greencastle	R	D	Zaring, Clint. F	Greencastle	R	L

Regular, 32; Eclectic, 2; Homeopathic, 2. Total, 36.

Randolph County.

Abell, Oscar E	Trenton	R	D	Fisher, Martin L	Winchester	PM	10 yrs.
Adams, Joseph F	Winchester	PM	10 yrs.	Franks, H. P	Losantville	R	D
Beauchamp, H. W	Saratoga	E	NR	Frederic, Geo. W	Ridgeville	R	"
Beck, Isaac E	N. Pittsburg	PM	NR	Freeman, Benj. F.	Ridgeville	R	"
Blair, James S	Lynn	R	D	Gustin, F. M	Union City	H	NR
Benson, Chas. B	Union City	R	"	Harrison, Harlan	Union City	E	D
Berry, J. S	Spartanburg	R	"	Hiatt, C. C	Winchester	E	NR
Bosworth, R	Winchester	R	"	Hiatt, John A	Ridgeville	E	NR
Botkin, Thos. W	Farmland	E	NR	Hinshaw, Otis W.	Lynn	R	D
Carver, Jas. M	Winchester	R	10 yrs.	Hinshaw, Wm. H.	Bartonia	PM	NR
Chenoweth, F. A	Winchester	R	D	Huddleston, A. F	Winchester	H	"
Chenoweth, J. T	Winchester	R	"	Hunt, Bader S	Winchester	R	D
Chenoweth, N. T	Windsor	R	"	Johnson, E. W	Union City	R	NR
Coffin, A. W	Carlos	E	NR	Kelly, C. M	Winchester	R	D
Commons, Wm	Union City	R	D	Markle, John E.	Winchester	R	"
Cox, Cyrus R	Lynn	R	"	Markle, Grant C	Winchester	R	"
Cromer, L. G	Union City	R	"	McCormick, W. D.	Modoc	PM	NR
Current, O. E	Farmland	R	"	McFarland, N	N. Pittsburg	PM	"
Evans, Jos. J	Winchester	R	10 yrs.	McWhinney, B. P.	Union City	E	D
Evans, David F	Union City	R	D	Milligen, Chas E.	Winchester	PM	"
Farquhar, A H	Ridgeville	E	NR	Morgan, Thos. W	Spartanburg	R	"

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Randolph County—Continued.

Name.	Postoffice.	School.	Basis of License.
Nixon, John	Farmland	R	D
Noffsinger, H	Union City	E	NR
Owens, John K	Harrisville	R	"
Proctor, J. A	Union City	R	"
Purcell, Sarah	Randolph	R	10 yrs.
Rarick, Isaac	Parker	PM	"
Reeves, John L	Union City	E	D
Reynard, E. G	Union City	R	"
Reynard, G	Union City	R	"
Rine, Edgar W	Winchester	R	"
Rogers, Aaron G	Parker	R	"
Ruby, Samuel B	Union City	R	10 yrs.
Simmons, W. D	Farmland	E	NR
Smith, Arthur D	Winchester	R	D
Smith, Calvin	Farmland	E	NR
Snodgrass, B. K	Union City	PM	"
Spitler, Chas. E	Saratoga	R	D
Tisor, Wm. R	Rural	R	10 yrs.
Wiggins, D. S	Losantville	R	D
Willbern, E. L	Union City	E	"
Yerhan, H. H	Union City	R	"
Zeller, F. A	Union City	R	"

Regular, 40; Eclectic, 13; Homeopathic, 2; Physio-Medical, 9. Total, 64.

Ripley County.

Name.	Postoffice.	School.	Basis of License.
Anderson, James	Versailles	R	D
Beckett, Geo. T	Benham	R	"
Birchfield, J. W	Sunman	R	"
Bradley, J. T	Cross Plains	R	"
Brenton. T. M	Osgood	R	3 yrs.
Brown, C. M	New Marion	R	D
Cass, C. H	Holton	R	10 yrs.
Coomes, M. J	Rexville	R	D
Cox, Jacob G	Holton	R	"
Cox. L. T	Napoleon	R	"
Elliott, R. M	Morris	R	"
Freeland, J. P	Sunman	R	"
Freeman, E. D	Osgood	R	"
Gibson, C. W	Batesville	R	"
Hess, J. N	New Marion	R	"
Hicks, John C	Napoleon	PM	"
Jones, J. G	Versailles	R	"
Kramer, F. M	St. Magdalene	R	D
Martin, Lafayette	Batesville	E	"
Miller, R. H	Cross Plains	R	"
Newforth, C	Sunman	R	"
Olmsted, R. T	Versailles	R	"
Pate, John R	Milan	R	"
Payne, T. H	Delaware	R	"
Ratcliff, J. T	Morris	R	"
Redlon, D. M	Pierceville	R	3 yrs.
Roberts, J	Holton	R	10 yrs.
Roney, D. C	Milan	R	D
Sweezy, John M	Cross Plains	R	"
Timmerman, E	Batesville	R	"
Townsend, R. C	Osgood	R	"
Townsend, S. B	Milan	R	"
Veazey, T. R	Milan	R	"
Zitekc, J. F	Batesville	R	"

Regular, 32; Eclectic, 1; Physio-Medical, 1. Total, 34.

Rush County.

Name.	Postoffice.	School.	Basis of License.
Barnum, Wm. E	Manilla	R	D
Blount, Roland T	Homer	R	"
Bowen, J. F	Rushville	R	"
Bufkin, Ezra	Gowdy	PM	"
Coffin, Orlando S	Carthage	E	"
Cregor, Fr'klin W	Carthage	R	"
Dean, D. H	Rushville	H	"
Dillon, J. C	Rushville	R	"
Dillon, O. P	Rushville	R	"
Drake, F. J	Carthage	R	"
Elliott, H. H	Glenwood	R	"
Gilbert, Chas. H	Rushville	H	"
Green, Frank H	Rushville	R	"
Green, John D	Manilla	R	"
Green, Lot	Rushville	R	"
Guild, Chas A	Rushville	R	"
Hackleman, F. G	Rushville	R	"
Hall, A. S	Arlington	R	D
Houghland, C. S	Milroy	R	"
Hudelson, R. L	Richland	R	"
Johnson, Wm. A	Falmouth	R	"
Jones, Geo. B	Rushville	R	"
Jones, John H	Gowdy	E&R	"
Lampton, Wm. T	Milroy	R	"
Lewis, John G	Rushville	H	"
Linn, Henry G	Rushville	H	"
Logan, Henry V	New Salem	R	"
Lord, J. Levi	Mays	R	"
Lowden, L. A	Manilla	R	"
McGaughey, J. E	Arlington	R	"
Megee, Omar	Rushville	R	"
Moffett, John	Rushville	R	"
Parsons, Chas H	Rushville	R	"
Paxton, E. J. T	Glenwood	R	"

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Rush County—Continued.

Name.	Postoffice.	School.	Basis of License.
Rea, Chas. L	Falmouth	R	D
Rucker, Thos H.	Arlington	R	"
Sexton, John C	Rushville	R	"
Shrout, J. W	Moscow	E	"
Sipe, John A	Carthage	R	"
Smith, Frank	Arlington	R	"
Smith, W. C	Rushville	R	"
Smith, W. H	Rushville	R	D
Smullen, Chas. L	Raleigh	R	"
Spurrier, John H.	Rushville	R	"
Tevis, J. L. W. L.	Moscow	R	"
Thomas, Sam'l C.	Milroy	R	"
Van Osdol, D D	Rushville	R	"
Wooden, Edw. I	Rushville	R	"

Regular, 41; Eclectic, 2; Homeopathic, 4; Physio-Medical, 1. Total, 48.

Scott County.

Name.	Postoffice.	School.	Basis of License.
Blocher, J. B	Blocher	R	D
Casey, H. R	Austin	R	"
Cline, G. F	Scottsburg	R	"
Close, Thos	Scottsburg	R	"
Houghl'd, M.E.M.	Vienna	R	"
Kendall, P. A	Austin	R	"
Lothrop, A. H	Lexington	R	"
Mathews, Chas. B.	Lexington	R	D
McClain, Levi	Scottsburg	R	"
McClain, W. L	Scottsburg	R	"
Murphy, O. C	Scottsburg	R	"
Sarver, A. J	Blocher	R	"
Sarver, F. C	Blocher	R	"
Tichenor, J. B	Lexington	R	"

Regular, 14. Total, 14.

Shelby County.

Name.	Postoffice.	School.	Basis of License.
Adams, Ovid L	Shelbyville	R	D
Baird, A. J	Shelbyville	R	"
Bayler, W. K	Waldron	E	"
Bentley, Wm. R	Morristown	H	"
Blackburn, Ella	Shelbyville	R	"
Black, F. B	Bengal	E	"
Boone, B. H	Boggstown	R	"
Bowlby, Joseph	Shelbyville	R	"
Caldwell, Robert	Flatrock	R	"
Campbell, Frank	Shelbyville	R	"
Clark, Robert E	Shelbyville	R	"
Connelly, H. M	Flatrock	R	"
Cook, Charles	Gwynneville	R	"
Eberhart, J. D	Shelbyville	R	"
Fleming, Geo. W	Shelbyville	R	"
Floyd, R. M	Shelbyville	R	"
Ford, Walter M	Mt. Auburn	R	"
Green, Thos. G	Shelbyville	R	"
Green, W. F	Shelbyville	R	"
Hess, M. M	Morristown	R	10 yrs.
Inlow, Geo. J	Blue Ridge	R	D
Inlow, J. N	Blue Ridge	R	"
James, T. S	Shelbyville	R	"
Jenkins, J. R	Shelbyville	R	"
Keeling, Jas. E	Sulphur Hills	R	"
Kennedy John Y	Shelbyville	E	"
Kennedy, Samuel	Shelbyville	R	"
Kennedy, T. C	Shelbyville	R	"
Lowden, John	Carrolton	E	"
Lucas, J. N	Shelbyville	H	"
Maze, Thomas B	Fairland	R	10 yrs.
McCain, T. J	Waldron	R	D
McCray, Robert S.	Morristown	R	"
McFadden, W. G	Shelbyville	R	"
Miller, E. B	Fountaint'wn	R	"
Norton, Thos. J	Marrietta	R	"
Parrish, John W.	Shelbyville	E	"
Parrish, Willard	Fenns	R	"
Perry, Chas. H	Lewis Creek	R	"
Pettigrew, D. A	Flatrock	R	"
Phares, Henry E	Morristown	R	"
Pierson, W. M	Fountaint'wn	R	"
Randolph, D. F	Waldron	R	"
Ray, Franklin E	Fairland	R	"
Rubush, Thos. R	London	R	"
Rucker, Jesse W	Shelbyville	R	"
Sammons, L. C	Shelbyville	H	"
Sanford, James H.	Shelbyville	R	10 yrs.
Scherfee, J. F	Fairland	R	D
Sexton, Charles E	Fountaint'wn	R	"
Shrout, J. W	Blue Ridge	E	"
Shrout, Wm. F	Blue Ridge	E	"
Snider, John W	Fairland	R	"
Stewart, John B	Shelbyville	R	"
Strickler, S. S	Boggstown	E	"
Taylor, John F	Sulphur Hill	R	"
Thomann, Angela	Shelbyville	Midwife.	
Tindall, C. A	Shelbyville	E	"
Toner, Harry M	Shelbyville	R	"
Tull, Edward M	Fairland	R	"
Van Nuys, D. H	Shelbyville	R	"
Wolf, Jacob G	Morristown	NR	"

Regular, 48; Eclectic, 9; Homeopathic, 3; Midwife, 1; not reported, 1. Total, 62.

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Name.	Postoffice.	School.	Basis of License.
Adye, Clarence H.	Patronville	R	NR
Adye, Geo. F.	Newtonville	R	"
Alexander, Wm. B.	Buffaloville	R	"
Allenbaugh, E. E.	Huff	R	"
Arnold, Frank M.	Grand View	R	"
Baumgaertner, O.	Rockport	R	"
Bean, A. M.	Chrisney	E	"
Billart, F. W.	Chrisney	R	"
Brewer, Albert M.	St. Meinrad	R	"
Bryant, W. S.	Dale	R	"
Butler, Jas. M.	Troy	E	"
Buxton, E. J.	Rockport	R	"
Clifford, J. W.	Dale	E	"
Cramm, C. J.	Lamar	R	"
Dailey, Jas. M.	Rockport	R	"
Dome, H. S.	Eureka	R	"
Dyer, A. S.	Huffman	E	"
Dyer, G. S.	Huffman	R	"
Ehrman, C. D.	Rockport	H	"
Ehrman E. D.	Rockport	H	"
Eichling, J. A.	Lincoln City	R	"
Foster, A. O.	Newtonville	R	"
Garrison, W. S.	Gentryville	R	"
Gatewood, T. H.	Midway	R	"
Goble, D. S.	Chrisney	R	"
Gwaltney, S. P.	Midway	E	"
Hackleman, F. M.	Rockport	E	"
Harter, Harry T.	Newtonville	R	NR
Horron, Geo. W.	Hatfield	R	"
James, J. B.	Buffaloville	E	"
John, B. B.	Gentryville	E	"
Johnson, J H	Rockport	H	"
Jolly, John C.	Lake	R	"
Jones, C. T.	Gentryville	R	"
Logsdon, W. T.	Eureka	R	"
Long, Jacob.	Rockport	H	"
Maslowsky, Felix.	Mariah Hill.	R	"
McClary, D. V.	Dale	R	"
McCoy, Geo. W.	Chrisney	R	"
McCoy, L. H	Lake	R	"
Roberts, Gilmour.	Lake	R	"
Sanders, J. M.	Gentryville	E	"
Schweizer, J. J	Santa Claus	R	"
Stutesville, S. W.	Grand View	R	"
Tully, Lee H.	Liberal	R	"
Turpin, James	Rockport	R	"
Wheeler, J T	Rockport	E	"
White, Arthur	Rockport	R	"
White, H. Q.	Grand View	R	"
White, John T.	Grand View	R	"
Williams, W. H.	Dale	E	"
Evans, Melissa	Newtonville	Midwife	
Wallace, Jane	Dale	Midwife	

Regular, 36; Eclectic, 11; Homeopathic, 4; Midwives, 2. Total, 53.

Starke County.

Name.	Postoffice.	School.	Basis of License.
Abner, John R.	Hamlet	PM	D
Boner, M. C.	Knox	R	10 yrs.
Boner, Samuel S.	Hamlet	R	"
Denaut, James L.	Hamlet	R	D
Englerth, Perry O.	North Judson	R	"
Flowers, Cath'ne A	Hamlet	Midwife	
Glazebrook, L. D.	Knox	R	10 yrs.
Henderson, A. H.	Knox	E	"
Noland, J. F.	North Judson	R	D
Noland, Wm. A.	North Judson	R	"
Solt, W. J.	San Pierre	R	"
Waddell, Charles.	North Judson	R	NR
Weninger, Agnes J	Toto	Midwife	
White, Daniel O.	Knox	E	NR
Wright, Mark R.	Knox	E	10 yrs.

Regular, 9; Eclectic, 3; Physio-Medical, 1; Midwives, 2. Total, 15.

St. Joseph County.

Name.	Postoffice.	School.	Basis of License.
Applegate, Chas.	South Bend	R	D
Austin, Griffin H.	Woodland	R	"
Barandy, O. V.	South Bend	NR	NR
Barber, A. E.	South Bend	R	D
Berteling, John B.	South Bend	R	"
Blackstone, W. B.	South Bend	R	"
Borisawicz, N. G.	South Bend	R	"
Borley, Edgar R.	South Bend	R	"
Borley, W. E.	Mishawaka	R	"
Borough, John	Mishawaka	H	"
Boss, Jacob H.	North Liberty	R	"
Boyd, Snee Henry.	South Bend	R	"
Brown, Jacob R.	Sump. Prairie.	R	D
Butterworth, Chas.	South Bend	R	"
Calvert, Robt. H.	South Bend	R	"
Campbell, A. S.	North Liberty	E	10 yrs.
Cannon, J. A.	South Bend	R	D
Cassidy, John	South Bend	R	"
Chaffee, Walter D.	South Bend.	H	"
Daugherty, C. A.	South Bend	R	"
Davis, Josephus	New Carlisle	R	"
Dean, Edwin R.	South Bend	R	"
Denaut, Henry D.	Walkerton	R	"
Denaut, Mathew S.	Walkerton	R	"

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St. Joseph County—Continued.

Name.	Postoffice.	School.	Basis of License.
Doane, Edgar	Mishawaka	R	D
Drollinger, E. M	South Bend	E	"
Dugdale, R. B	South Bend	R	"
Eastman, Fred P	South Bend	R	"
Fink, Henry A	South Bend	R	"
Frank, Catherine	South Bend	H	10 yrs.
Fromen, Ernest T	South Bend	R	D
Gish, John L	South Bend	R	"
Godfrey, Julia B. D	South Bend	H	"
Greene, J. B	Mishawaka	R	"
Grimes, Henry T	New Carlisle	R	"
Grimes, Jas. F	Mishawaka	E	"
Hager, Walter A	South Bend	R	"
Hansel, Chas. E	South Bend	R	"
Harris, Robert	South Bend	R	"
Hewitt, Homer S	Mishawaka	H	"
Hickman, C. J	South Bend	E	"
Hill, Jacob W	South Bend	R	"
Holtzendorf, H. C	Mishawaka	R	"
Ingleright, A. J	South Bend	PM	10 yrs.
Kaple, John D	South Bend	H	D
Kemble, Lovenia	South Bend	R	10 yrs.
Kilmer, Samuel L	South Bend	R	D
Lent, Edwin J	South Bend	R	"
McAllister, E. W	South Bend	R	"
McNamara, D. W	South Bend	R	"
Miller, Allen G	South Bend	R	"
Mills, Wm. F	South Bend	R	"
Miranda, Wm. F	Walkerton	R	"
Mitchell, Harry F	South Bend	R	"
Moore, Allen	North Liberty	R	D
Moore, Edwin P	South Bend	R	"
Moore, John	Lakeville	R	10 yrs.
Montgomery, H. T	South Bend	R	D
Myers, C. H	South Bend	H	"
Osborn, George A	South Bend	R	10 yrs.
Osborn, Margaret	South Bend	R	"
Partridge, Joel M	South Bend	H	D
Reece, James N	North Liberty	R	"
Rennoe, Callie A	South Bend	R	"
Ringle, Chas. A	South Bend	R	"
Rupp, Peter E	South Bend	R	"
Sawyer, Frank M	South Bend	R	"
Seaman, J. B	Osceola	R	"
Stockwell, Sarah F	South Bend	R	"
Stoltz, Charles	South Bend	R	"
Stroup, Chas. C	Mishawaka	R	"
Terry, Charles C	South Bend	R	"
Thomas, Martha V	South Bend	H	"
Turner, Agnes	South Bend	R	"
Urquhart, R. T	South Bend	R	"
Van Riper, A. N	New Carlisle	R	"
Varier, James A	South Bend	R	"
Vitou, Henry E	South Bend	E	"
Waynick, J. B	New Carlisle	R	"
Wegner, Wm. G	South Bend	R	"
White, John W	South Bend	E	"
Whitehall, Sam'l	South Bend	R	"
Wickham, W. A	South Bend	E	"
Wood, Wm. F	Mishawaka	R	"

Regular, 66; Eclectic, 7; Homeopathic, 9; Physio-Medical, 1; not reported, 1. Total, 84.

Steuben County.

Abbott, Lyman A	Fremont	R	D
Bowen, M. M	Flint	R	"
Cameron, J. F	Hamilton	R	"
Creel, T. J	Angola	R	"
Cunningham, H. L	Salem Center	R	"
Dunkel, J. L	Fremont	R	"
Fuller, S. H	Pleasant Lake	R	"
Gibbs, O. H	Hamilton	E	"
Goodale, C. W	Metz	R	"
Green, McKendree	Pleasant Lake	R	"
Hamilton, F. C.	Hudson	R	"
Humphreys, F. B	Angola	R	"
Keesler, G	Orland	R	"
Kimmel, A. J	Hudson	R	"
Lane, W. H	Angola	R	"
Leasure, Lida	Angola	R	"
Moor, J. E	Orland	R	"
Moore, C. A	Fremont	R	D
Nichols, H. A	Flint	R	"
Ott, J. E	Ashley	R	"
Patchen, D. H	Fremont	H	"
Sherrow, W. E	Ashley	E	"
Smith, A. D	Angola	H	"
Smith, Marie B	Orland	H	"
Sutherland, P. N	Angola	R	"
Taylor, E. A	York	R	"
Waller, W. H	Angola	R	"
Walmer, E. L	Fremont	R	"
Wilkinson, J. J	Orland	R	"
Williams, T. B	Angola	R	"
Wood, H. D	Angola	R	"
Wood, T. F	Angola	R	"
Wood, W. W	Angola	R	"
Wright, D. M	Hudson	R	"

Regular 29; Eclectic, 2; Homeopathic, 3. Total, 34.

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Sullivan County.

Name.	Postoffice.	School.	Basis of License.
Bedwell, T. S	Dugger	R	L
Bennett, J. H	Farmersburg	E	"
Billman, Jas. M	Sullivan	E	"
Blann, Herbert E.	Fairbanks	R	"
Briggs, C. F	Sullivan	R	"
Brown, N. H	Eagle	E	"
Coffee, A. H	Hymera	R	"
Corbin, E. M	Sullivan	R	"
Cox, John L	Carlisle	R	"
Crowder, J. R	Sullivan	R	"
Crowder, R. H	Sullivan	R	"
Crowley, John B.	Sullivan	R	"
Cushman, A	Graysville	R	"
Davis, John W	Alum Cave	R	"
Davis, N. B	Sullivan	R	"
Delashmutt, V. E.	Shelburn	R	"
Denison, E. D	Carlisle	R	"
Durham, J. L	Graysville	R	"
Edwards, C. H	Sullivan	R	"
Faught, Wm. C	Farmersburg	R	"
Freeman, Jos	Sullivan	R	"
Harper, Jas. A	Shelburn	R	"
Higbee, Geo. W	Sullivan	H	"
Higbee, J. L	Sullivan	H	"
Hinkle, J. R	Sullivan	R	"
Jackson, John H.	Pleasantville	R	L
Kennedy, T. W	Sullivan	R	"
Lisman, J. W	New Lebanon	R	"
Lisman, W. A	Carlisle	R	"
Lowder, C. M	Dugger	R	"
Marshall, A. F	Hymera	R	"
McClung, S. Y	Pleasantville	R	"
McConnell, J. E	Carlisle	R	"
Miles, Jas	Merom	R	"
Murphy, John S	Sullivan	R	"
Neff, Jas. H	Fairbanks	R	"
Parker, O. O	Merom	R	"
Phillips, J. L	Pleasantville	R	"
Pirtle, Geo. W	Carlisle	R	"
Plew, G. F	Hymera	NR	"
Sheridan, Anna T.	Sullivan	E	"
Stoddard, Oren	Merom	R	"
Taylor, Eliz. P	Sullivan	H	"
Thixtun, E. D	Sullivan	R	"
Thompson, W. N	Sullivan	R	"
Thralls, R. T	Hymera	NR	"
Vancleave, R. H	Farmersburg	NR	"
Ward, H. H	Alum Cave	R	"
Warner, M. E	Carlisle	R	"
Yager, E. J	Graysville	R	"

Regular, 40; Eclectic, 4; Homeopathic, 3; not reported, 3. Total, 50.

Switzerland County.

Bear, L. H	Vevay	R	D
Copeland, G. W	Moorefield	R	"
Copeland, R. M	Bennington	R	"
Craig, A. G	Vevay	R	"
Culbertson, Scott	Vevay	R	"
Dalgleish, H. T	Vevay	R	"
Douglas, Dilver EE.	Enterprise	R	"
Greenleaf, H. A	Markland	R	"
Haydon, D. N	Vevay	R	10 yrs.
Jamieson, R. A	Patriot	R	D
Langsdale, J. M	Florence	R	"
Loomis, Chas	Florence	R	D
Pryor, James A	Patriot	R	"
Rous, Hannah C.	Vevay	R	"
Searcy, Benj. N.	Quercus Grove	R	"
Shadday, John H.	Moorefield	R	"
Smith, J. W	Vevay	H	"
Thiebaud, Hugh M	Vevay	R	"
Van Pelt, Geo. W.	Vevay	R	"
Ward, J. P	Vevay	R	"
Weindel, Wm. J.	Patriot	R	"
Woollen, Levin J.	Vevay	R	"

Regular, 21; Homeopathic, 1. Total, 22.

Tippecanoe County.

Ackerman, A. C	Lafayette	H	L
Alexander, W	Buck Creek	R	"
Baker, E. S	Lafayette	R	"
Baker, E. T	West Point	R	"
Bartholemew, A. C.	Lafayette	R	"
Baugh, Samuel L.	Farmers' Inst.	R	"
Beasley, G. F	Lafayette	R	"
Bert, W. P	Lafayette	E	"
Biddle, F. M	Battle Ground	R	"
Bitting, A. W	Lafayette	R	"
Boyd, B. H	Lafayette	R	"
Brown, Karl T	Colburn	R	"
Brown, W. W. C	Lafayette	R	L
Butler, W. F	Stockwell	R	"
Campbell, W. S	West Point	R	"
Chartier, J. H	Lafayette	R	"
Crouse, J. H	Dayton	R	"
Curtis, W. H	Lafayette	R	"
Davidson, E. C	Lafayette	R	"
Davis, A. P	Lafayette	R	"
Deinhart, M	Lafayette	R	"
Driscoll, C. C	Lafayette	R	"
Ellis, J. D	Clark's Hill	R	"
Fickle, Jas. M	Stockwell	E	"

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Tippecanoe County—Continued.

Name.	Postoffice.	School.	Basis of License.
Glenton, M. V	Lafayette	R	L
Gray, Frank P	Lafayette	R	"
Gray, James N	Lafayette	R	"
Green, Leonard T.	Odell's Cor's	R	"
Hamilton, R. A	Clark's Hill	E	"
Harbaugh, C. A	Lafayette	R	"
Harold, A. R	Lafayette	PM	"
Helfrick, H. J	Clark's Hill	R	"
Hillis, J. D	Lafayette	R	"
Hiner, F. T	W. Lafayette	R	"
Hopper, M. S	Lafayette	R	"
Hupe, Charles	Lafayette	R	"
Irwin, L. M	Lafayette	R	"
Jeffers, F. M	Lafayette	R	"
Keiper, G. F	Lafayette	R	"
Kern, C. B	Lafayette	H	"
Kirkpatrick, G. W.	Lafayette	R	"
Lairy, Manson	Lafayette	R	"
Littell, John V	Lafayette	R	"
Lockhart, A. T	Stockwell	R	"
Louder, C. L	Lafayette	R	"
Mayfield, A. M	Montmorenci	R	"
McBride, W. F	Dayton	R	"
McCrea, Wm. F	Clark's Hill	E	"
McGirley, M. E	Lafayette	H	"
McMahon, Adah.	Lafayette	R	"
Mendenhall, C. J.	Lafayette	E	"
Miller, W. H	Lafayette	R	"
Mitchell, E. J	Lafayette	R	"
Moffitt, W. R	W. Lafayette	R	"
Morrison, J. S	Lafayette	R	"
Motter, T. S	Dayton	E	"
Nesbitt, W. S	Monitor	R	"
O'Dell, T. A	Lafayette	R	"
Ogborn, Job O	Lafayette	E	"
O'Leary, F. T	Montmorenci	R	"
Peters, W. H	Lafayette	R	"
Pyke, A. S	Romney	R	L
Race, R. A	Lafayette	H	"
Revis, George	Lafayette	R	"
Rodenhuis, Evert.	Lafayette	R	"
Ross, J. C	Lafayette	R	"
Sargent, T. C	Lafayette	R	"
Schaible, Emil	Lafayette	R	"
Seawright, Sam'l.	Lafayette	R	"
Shill, C. W	Lafayette	R	"
Simison, John	Romney	R	"
Simison, John F.	Romney	R	"
Sinclair, I. P	Lafayette	R	"
Smith, J. M	Lafayette	H	"
Snyder, Leander	Lafayette	R	"
Taylor, Wm. R	Clark's Hill	R	"
Tea, R. S	Lafayette	R	"
Test, Erastus	Lafayette	R	"
Test, F. C	Lafayette	R	"
Thompson, F. B	Lafayette	R	"
Thompson, G. W.	Stockwell	R	"
Thro'km'rt'n, G. K.	Lafayette	R	"
Thro'km'rt'n, O. E.	Battle Ground	R	"
Tyler, J. L	Otterbein	R	"
Vinnedge, W. W.	Lafayette	R	"
Walker, W. S	Lafayette	R	"
Washburn, G. W.	Lafayette	E	"
Washburn, S. T	Lafayette	R	"
Webster, John C.	Lafayette	R	"
Wells, A. A	Lafayette	R	"
Westfall, A. B	Lafayette	R	"
Wetherill, R. B	Lafayette	R	"
Whalen, T. H	Lafayette	R	"
White, Reid A	Lafayette	R	"
Wilson, M. C	Lafayette	R	D
Yeager, J. Wm	W. Lafayette	R	L
Youkey, W. P	Lafayette	R	"

Regular, 83; Eclectic, 8; Homeopathic, 5; Physio-Medical, 1. Total, 97.

Tipton County.

Chance, B. V	Windfall	R	
Cochran, Thos	Sharpsville	R	
Cooper, John	Groomsville	NR	
Daum, A. W	Tipton	R	
Dickey, A. S	Tipton	R	
Doan, N. W	Newcastle	R	
Downing, S. G	Hobbs	R	
Furney, W. C	Sharpsville	R	
Gossett, Lucy	Kempton	E	
Grishaw, H. E	Tipton	R	
Hildrup, J. R	Windfall	H	
Hinkle, E. I	Goldsmith	R	
Huron, W. B	Tipton	H	
Jessup, John T	Curtisville	R	
King, F. B	Windfall	R	
Longfellow, T. W.	Windfall	R	
McKee, Wm. E	Goldsmith	R	
Mehlig, H. M.	Tipton	R	
Michael, A	Tipton	H	
Plough, M. T	Kempton	R	
Pugh, J	Kempton	R	
Read, H. G	Tipton	R	
Recobs, R. M	Tipton	R	
Repp, G. R	Tipton	R	
Roads, Anna E	Tipton	R	
Rubush, D. P	Sharpsville	R	
Russell, Geo. A	Tipton	R	
Tressider, Sarah E.	Tipton	R	
Tressider, J. T	Tipton	R	
Wood, Geo. C	Windfall	R	

Regular, 25; Eclectic, 1; Homeopathic, 3; not reported, 1. Total, 30.

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Union County.

Name.	Postoffice.	School.	Basis of License.
Beard, E. R	Liberty	R	NR
Egolf, H. M	Liberty	R	"
Kell, S	Liberty	R	"
Meek, M. L	Abington	R	"
Mendenhall, ——	Abington	H	"
Morris, J. E	Liberty	R	"
Pigman, G. W	Liberty	H	NR
Rife, ——	Boston	R	"
Risinger, W	Abington	H	"
Sherman, W. C	Brownsville	R	"
Smith, J. A	Brownsville	R	"
Yencer, M. W	Boston	H	"

Regular, 8; Homeopathic, 4. Total, 12.

Vanderburgh County.

Name.	Postoffice.	School.	Basis of License.
Achillis, F. W	Evansville	R	D
Babcock, F. W	Evansville	R	"
Bacon, C. P	Evansville	R	"
Baughman, J. N	Evansville	R	"
Beeler, J. L	Evansville	H	"
Begley, B. W	Evansville	R	"
Berns, P. C., Jr	Evansville	R	"
Binkley, John F	Evansville	R	"
Bitz, L. B	Evansville	R	"
Blount, J. F	Evansville	H	"
Boston, Ernest	Evansville	R	"
Boyden, C. F	Evansville	R	"
Brose, L. D	Evansville	R	"
Bryan, A. H	Evansville	R	"
Bryan, S. L	Evansville	R	"
Buckner, G. W	Evansville	E	"
Burger, E. V	Howell	R	"
Busse, Ed. B	Evansville	R	"
Busse Kath. S	Evansville	R	"
Cain, D. B	Evansville	R	"
Cantrall, F. H	Evansville	R	"
Clark, J. H	Evansville	R	"
Clarke, O. L	Evansville	R	"
Cleveland, F. W	Evansville	R	"
Clippinger, W. F	McCutch'v'lle	R	"
Cluthe, C. F	Evansville	R	"
Cole, J. J	Evansville	R	"
Cole, W. J	Evansville	R	"
Coleman, W. H	Evansville	R	"
Compton, F. S	Evansville	R	"
Compton, Jno. W	Evansville	R	"
Compton, M. J	Evansville	R	"
Cottingham, I. C	Evansville	R	"
Cox, D. H	Howell	R	"
Cummings, C. C	Evansville	R	"
Davidson, Wm. R	Evansville	R	"
Davis, F. L	Evansville	H	"
Day, Ben J	Evansville	R	10 yrs.
Diefendorf, C. F	Evansville	R	D
Dixon, H. T	Evansville	R	"
Dunlevy, Geo. C	Evansville	H	"
Dunn, Rose M	Evansville	R	"
Dupee, Stradford	Evansville	R	"
Eichel, Sidney J	Evansville	R	"
Field, Wm. H	Evansville	R	"
Freman, James F	Howell	E	10 yrs.
Frick, Herman	Evansville	R	D
Fritsch, Wm. H	Evansville	R	"
Gilbert, Wm. H	Evansville	R	D
Glover, J. F	Evansville	R	"
Greene, Willis S	Evansville	R	10 yrs.
Gumaer, C. H	Evansville	R	D
Hanslmair, J. M	Evansville	R	"
Hargan, H. C	St. Joseph	R	10 yrs.
Harpole, C. B	Evansville	H	D
Hartloff, C. W	Evansville	R	"
Hayden, A. M	Evansville	R	"
Hayhurst, A. S	Evansville	R	10 yrs.
Heberer, J. M	Evansville	R	D
Hodson, Geo	Evansville	R	"
Hooker, H. H	Oakdam	R	10 yrs.
Huber, J. G	Evansville	R	"
Illing, A. F	Evansville	R	10 yrs.
Jackson, Jury	McCutch'v'lle	R	D
Jerome, J. M	Evansville	R	"
Johnson, J. H	McCutch'v'lle	H	10 yrs.
Jones, F. M	McCutch'v'lle	R	D
Jones, G. E	McCutch'v'lle	R	"
Jones, Wm. E	McCutch'v'lle	R	"
Kelley, G. C	McCutch'v'lle	H	"
Kelsay, Clarence	McCutch'v'lle	R	"
Knapp, A. J.	McCutch'v'lle	R	"
Laubscher, S. R	McCutch'v'lle	R	"
Laval, Wm. J	McCutch'v'lle	R	"
Leach, T. J	McCutch'v'lle	R	"
Linthicum, E	McCutch'v'lle	R	"
Macer, Thomas	McCutch'v'lle	E	"
Maghee, J. M	Evansville	R	"
McClurkin, J. E	Evansville	R	"
McCoy, P. Y	Evansville	R	"
McCool, Wm. E	Evansville	R	"
McCutchan, J. H	Evansville	R	"
Montox, G. R	Kasson	R	"
Montox, J. E	Kasson	R	"
Moore, D. A	McCutch'v'lle	R	"
Muhlhausen, M	McCutch'v'lle	R	"
Nanney, W. N	Evansville	R	"
Owen, J. E	Evansville	R	"
Parnat, John	Evansville	R	10 yrs.
Pharas, J. N	Howell	R	D
Pollard, W. S	Evansville	R	"
Powell, T. E	Evansville	R	"
Power, S. J	Evansville	R	"
Pritchett, W. S	Evansville	R	"
Ralston, Wm. T	Evansville	R	10 yrs.
Ranger, J. N	Evansville	R	D

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Vanderburgh County—Continued.

Name.	Postoffice.	School.	Basis of License.
Ravdin, Marcus.	Evansville	R	D
Reavis, Wm J	Evansville	R	"
Reits, P. C	Evansville	R	"
Richstein, J. J	Evansville	R	"
Rose, Ben S	Evansville	R	"
Schultze, Theodore	Evansville	H	10 yrs.
Schuyler, P. S	Evansville	R	"
Sessions, S. K	Evansville	R	D
Stieler, Marie	Evansville	R	10 yrs.
Stork, J. W	Inglefield	R	D
Taylor, T. H	Evansville	H	"
Tepe, G. W	Evansville	R	"
Thomas, James	Evansville	R	10 yrs.
Turpin, James	Evansville	E	D
Varner, G. W	Evansville	R	"
Varner, W. T	Evansville	R	"
Ver Wayne, Ed. J.	Evansville	R	D
Viehe, C. G	Evansville	H	"
Viehe, C. H	Evansville	H	"
Walker, Ed	Evansville	R	"
Warter, Phillip	Evansville	R	"
Watt, I. E	Evansville	R	"
Welborn, J. Y	Evansville	R	"
Werts, Tohirer	Evansville	R	"
Weever, J. B	Evansville	R	"
Whittinghill, J. L.	McCutch'v'lle	E	"
Wilton, Isaiah	Evansville	R	"
Willis, J. H	Evansville	R	"
Witting, A. P	St. Joseph	R	"
Worsham, S	Evansville	R	"
Young, G. M	Evansville	R	"

Regular, 111; Eclectic, 5; Homeopathic, 11. Total, 127.

Vermillion County.

Aikman, Edgar A.	Clinton	R	L
Barnes, J. A	Perrysville	R	"
Bogart, J. H	Clinton	R	"
Darroch, W. P	Cayuga	R	"
Flaugher, E. A	Cayuga	R	"
Hall, M. L	Newport :	R	"
Harrison, R. G	Hillsdale	E	"
Hood, T. C	Dana	R	"
Keyes, Otis M	Dana	R	"
Kinderman, A	Eugene	R	"
Lownsdale, T. N	St. Bernice	R	"
Loomis, E. C	Perrysville	R	"
Lyons, Oliver	Dana	R	"
Mack, Erastus	Hillsdale	E	"
McGrew, Weson	Clinton	R	L
Newhouse, O. A	Hillsdale	R	"
Newton, G. O	Dana	R	"
Newton, John T	St. Bernice	R	"
Ray, Daniel P	Gessie	R	"
Ross, J. K	Cayuga	E	"
Sanders, F. E	Perrysville	R	"
Shepherd, Lewis	Quaker	R	"
Smith, A	Dana	R	"
Tucker, G. W	Dana	R	"
Vawter, F. L	Gessie	R	"
Wallace, James	Newport	R	"
Webb, James B	Perrysville	E	"

Regular, 23; Eclectic, 4. Total, 27.

Vigo County.

Baker, Will H	Terre Haute	H	D
Baldridge, J. H	Terre Haute	E	"
Ball, Lawrence S.	Prairieton	E	"
Belt, Richard	W. Terre Haute	E	"
Bell, Wm T	Terre Haute	R	"
Bennett, S. M	New Goshen	E	"
Bernheimer, H. L.	Terre Haute	R	"
Bland, Mary C	Terre Haute	PM	NR
Boor. Myron A	Terre Haute	R	D
Brown, S. Ella	Terre Haute	E	"
Brown, T. F	Sanford	R	10 yrs.
Brunker, Jas. W	Riley	R	D
Burris, Samuel O.	Seelyville	R	10 yrs.
Byers, L. S	Seelyville	R	D
Cabell, A. L	Terre Haute	R	"
Caldwell, H. H	Terre Haute	R	10 yrs.
Cambell, Grace H.	Terre Haute	NR	D
Carson, L. E	Prairietown	R	"
Collins, Wm. O	Pimento	R	D
Combs, M. C	Terre Haute	R	"
Crafton, O. T	Heckland	R	NR
Crapo, G. W	Terre Haute	R	D
Crapo, John R	Terre Haute	R	"
Cruikshank, O. G.	Lewis	R	NR
Crum, Margaret B.	Terre Haute	R	D
Davis, Wm. T	Ebermandale	R	NR
Dolson, J. R	Pimento	R	10 yrs.
Donnelly, J. E	Terre Haute	R	NR
Drake, F. A	Prairietown	R	"
Drake, J. F	Youngstown	R	"
Drake, T. G	Prairietown	R	"
Dupuy, C. M	Riley	R	D
Eichelberger, M. C.	Terre Haute	R	"
Elder, W. R	Terre Haute	H	"
English, J. P	Terre Haute	R	"
Foot, Z. H	Lewis	R	"

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Name.	Postoffice.	School.	Basis of License.
Frisz, J. A	Terre Haute	R	NR
Gerstmeyer, C	Terre Haute	R	"
Givens, C. C	Lewis	R	"
Glover, E. E	Terre Haute	R	"
Hanslmair, J. M.	Terre Haute	R	"
Hartly, T. H	Terre Haute	R	"
Hauck, J. H	Terre Haute	E	"
Hays, Florence W.	Terre Haute	R	D
Hemphill, T. H	Seelyville	R	NR
Hunt, J. S	W. Terre Haute	R	"
Hunt, W. B	Vigo	R	"
Jenkins, W. O	Terre Haute	R	D
Labier, C. R	Terre Haute	R	"
Langhead, J. T	Terre Haute	R	"
Larkins, E. L	Terre Haute	R	"
Layman, E	Terre Haute	H	"
Lee, T. L	Terre Haute	R	NR
Link, John E	Terre Haute	R	D
Loyd, T. A	Prairie Creek	R	"
Luckett, L. P	Terre Haute	R	"
Mason, John C	Prairieton	R	"
Mason, T. A	Terre Haute	R	"
Mattox, W. R	Terre Haute	R	NR
McAllister, E. B	Terre Haute	R	D
McClain, Leslie	Terre Haute	R	"
McCorkle, T. H	Terre Haute	R	"
McJohnson, A. S	Pimento	R	"
McJohnson, W. E	Terre Haute	R	"
Melton, S. B	Fontanet	R	NR
Moor, Wilmot	Terre Haute	H	D
Moore, M. W	Rosedale	R	NR
Moorhead, T. W	Terre Haute	R	D
Neal, E. M	Burnett	R	NR
Nebergall, J. W	Terre Haute	R	10 yrs.
Niblack, E. S	Terre Haute	R	D
Odell, J. L	Terre Haute	R	NR
Padget, T. I	Terre Haute	R	D
Patton, C.	Terre Haute	R	D
Payne, A. T	Terre Haute	R	"
Pinson, J. A	Terre Haute	R	"
Rice, S. M	Terre Haute	R	"
Roberts, W. H	Terre Haute	R	"
Rowe, T. C	Coal Bluff	R	"
Russle, C. W	Riley	R	"
Rynearson, B. F	Prairie Creek	R	"
Schell, Walker	Terre Haute	R	"
Shaley, F. W.	Terre Haute	R	"
Sinclair, I. P	Terre Haute	R	NR
Smick, S. M	Terre Haute	R	D
Spaulding, Thos	Terre Haute	E	"
Spotswood, E. T	Terre Haute	R	"
Stark, W. I	Fontanet	H	"
Stock, L. K	Terre Haute	R	"
Stunkard, T. C	Terre Haute	R	"
Tabor, Frank A	Terre Haute	R	"
Talbott, J. M	Terre Haute	R	10 yrs.
Thompson, H. H	Terre Haute	R	D
VanCleve, M. B	Terre Haute	H	"
Ward, S. H	Terre Haute	H	NR
Waters, M. H	Terre Haute	H	D
Weaver, O. S	Terre Haute	R	"
Weinstine, J. H	Terre Haute	R	"
Weinstine, L. J	Terre Haute	R	"
Weir, S. D	Terre Haute	R	"
Wells, H. O	Terre Haute	R	NR
Wideman, F. E	Terre Haute	R	D
Williams, L. J	Terre Haute	R	"
Willis, James R	Terre Haute	R	"
Wilson, J. R	Prairie Creek	R	"
Worrell, J. P	Terre Haute	R	"
Wood, Anna	Terre Haute	R	"
Wyeth, Charles	Terre Haute	R	"
Young, S. J	Terre Haute	R	"
Zimmerman, C. F	Terre Haute	R	"

Regular, 93; Eclectic, 7; Homeopathic, 8; Physio-Medical, 1; not reported, 1. Total, 110.

Wabash County,

Name.	Postoffice.	School.	Basis of License.
Ader, Henry	Wabash	R	D
Andrews, Leila E	N. Manchester	R	"
Banister, R. L	Lafontain	H	"
Barnett, J. S	N. Manchester	R	"
Blount, R. F	Wabash	R	"
Brady, T. R	Wabash	R	"
Brodbreck, G. H	Roann	R	"
Burke, Geo. H	Wabash	H	"
Buroker, Jacob P	Servia	E	"
Case, Augustus	Dora	R	"
Dawson, C. F	Lafontain	NR	NR
Dicken, C. L	Lafontain	R	D
Domer, Walter A	Wabash	R	"
Elliott, Geo. W	Wabash	E	"
Faust, P. G	Red Bridge	R	"
Foster, John H	Liberty Mills	R	"
Giffin, Reuben T	Dora	R	D
Ginther, David	N. Manchester	R	"
Goshorn, D. A	N. Manchester	R	"
Hale, M. N	Wabash	R	"
Hale, N. T	Wabash	R	"
Harding, Geo. W	N. Manchester	R	"
Hardman, W. E	LaGro	R	"
Hollingsw'th, A. S	Urbana	R	"
Houser, B. A	Somerset	R	"
Kautz, John	Wabash	R	"
Keim, Peter S	N. Manchester	R	"
Kern, Aaron	Wabash	R	"
Kidd, G. P	Roann	R	"
King, C. H	Wabash	R	"
Kitson, Frank S	N. Manchester	R	"
Laffarge, Carl	Wabash	H	"

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Wabash County—Continued.

Name.	Postoffice.	School.	Basis of License.
Lancaster, L. A	N. Manchester	R	D
LaSalle, G. M	Wabash	H	"
Lawes, M. O	N. Manchester	R	"
McGrew, Wm. N	Lafontain	R	"
Misener, Harry E	N. Manchester	PM	"
Modricker, John	Wabash	R	"
Mooney, H. C	Laketon	R	"
Moore, P. G	Wabash	R	"
Murphy, D. S	Wabash	E	"
Nichols, W. E	New Holland	R	"
O'Neal, Laughlin	Somerset	R	"
Pearson, E. D	Wabash	H	"
Renner, M. E	Urbana	R	"
Shaffer, Phillip	N. Manchester	R	"
Shellheimer D. C	Wabash	R	D
Shreve, F	Wabash	R	"
Smith, L. F. J	Wabash	R	"
Smith, Tom W	Wabash	R	"
Smith, W. J	Servia	E	"
Sowers, J. H	Disko	R	"
Stewart, J. W. G	Wabash	H	"
Stewart, W. F	Wabash	H	"
Thompson, N. H	Wabash	R	"
Wells, Wm. Y	Laketon	R	"
Wilson, Anna	Wabash	H	"
Wilson, James	Wabash	R	"
Williams, Jesse B	Wabash	R	"

Regular, 45; Eclectic, 4; Homeopathic, 8; Physio-Medical, 1; not reported, 1. Total, 59.

Warren County.

Name.	Postoffice.	School.	Basis of License.
Bernard, G. W	Rainsville	H	D
Campbell, T. B	W. Lebanon	R	"
DeHart, Jacob	Williamsport	R	"
DeLancey, S. S	Williamsport	H	"
Dinsmore, W. H	Kramer	R	"
Dunaway, D	W. Lebanon	R	"
Hoag, J. H	Marshfield	NR	NR
Jones, T. B	Pine Village	R	D
Kendall, C. W	Pine Village	R	"
McAffee, E. M	Kramer	H	"
McCollough, A. R	Williamsport	H	NR
McMullen, J. W	Pine Village	R	10 yrs.
Porter, A. M	State Line	R	"
Reagan, Theo	State Line	R	D
Rosenberg, I. A	Independence	R	10 yrs.
Stephenson, R	Hedrick	R	D
Swank, L	Williamsport	R	"
Trent, J. H	Dresser	E	10 yrs.
Vick, W. V	Green Hill	E	"
Watson, J. R	W. Lebanon	R	D

Regular, 13; Eclectic, 2; Homeopathic, 4; not reported, 1. Total, 20.

Warrick County.

Name.	Postoffice.	School.	Basis of License.
Aust, F. T	Tennyson	R	D
Benson, R. A	Weltes	R	"
Brown, A. P	Elberfeld	R	"
Brown, Leander	Elberfeld	R	"
Camp, G. H	Lynnville	R	"
Camp, J. W	Lynnville	R	"
Camp, Wm. F	Lynnville	R	"
Daily, Wm. W	Stanley	R	"
DeForest, D. F	Boonville	R	"
DeForest, D. A	Boonville	R	"
Folsom, E. M	Boonville	R	"
Ford, Wm. P	Boonville	R	"
Hart, E. H	Tennyson	R	"
Honeycutt, W. J	Scalesville	R	"
Howard, T. M	Boonville	R	"
Hunt, W. A	Lynnville	R	"
Jones, F. M	Stephenson	R	"
Jones, Thos. B	Lynnville	R	"
Keegan, C. J	Canal	R	"
Kiefer, Chas	Newburgh	R	"
Kister, Geo. H	Elberfeld	R	"
Lett, O. A	Newburgh	R	"
Magenheimer, P	Chandler	R	"
McCoy, T. J	Boonville	R	"
McVey, W. H	DeGonia Spgs.	R	10 yrs.
Mills, Wm. H	Boonville	R	D
Nenneker, Henry	Elberfeld	R	"
Newton, Grant	Boonville	H	"
Parke, Chas	Boonville	R	"
Rucker, O. P	Newburgh	R	"
Scales, H. W	Boonville	R	"
Schuck, John H	Welter	R	"
Shaul, Monroe	Pelser	R	"
Spradley, N. M	Selvin	R	"
Spradley, L. G	Dickeyville	R	"
Springstun, C. E	Selvin	R	"
Tucker, D. W	Boonville	R	"
Tyner, S. L	Boonville	R	"
Waldron, W. M	Newburgh	R	"
Watson, W. D	Tennyson	R	"
West, E. A	Folsomville	R	"
Wilde, G. O	Boonville	R	"
Williams, Q. L	Folsomville	R	"
Wilson, Dalton	Yankeetown	R	"
Wilson, Wesley	Yankeetown	R	"
Wright, Thos	Boonville	R	"
Youngblood, E. M	Boonville	R	"
Zimmerman, J	Lynnville	R	"

Regular, 47; Homeopathic, 1. Total, 48.

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Name.	Postoffice.	School.	Basis of License.
Applegate, W. S	ChestnutHillNR		3 yrs.
Armstrong, B. M.	Fredricksburg	R	D
Baker, T. H. B	Pekin	R	"
Bare, Jno. R	Salem	R	"
Barnett, Jno. T.	Hardinsburg	R	"
Bradshawe, A. E.	Halo	R	"
Bright, W. H	Martinsburg	R	"
Cauble, W. C	Salem	R	"
Duff, J. F. H	Campbellsb'g	R	"
Dweese, Geo. W	Fredricksburg	R	3 yrs.
Ferree, Isaac	Livonia	R	D
Fouts, H. C	Hardinsburg	R	"
Hancock, Geo. W	Campbellsb'g	R	"
Herron, T. W	Lesterville	R	"
Hobbs, H. C	Salem	R	"
Holliday, B. M	Livonia	R	"
Howard, S. B	Kossuth	R	"
Hudson, L. H	Little York	PM	10 yrs.
Kelley, Jno. F	Livonia	R	D
Luckett, S. E	Campbellsb'g	R	"
Martin, R. M	Salem	R	D
Martin, Theodore	Palmyra	PM	"
McPheeters, J. S.	Hardinsburg	R	"
Mills, Richard	Saltillo	R	3 yrs.
Mitchell, Jas. J	Canton	R	D
Morris, W. B	Little York	R	"
Murphy, C	Salem	R	"
Neyman, E. M. C.	Saltillo	R	10 yrs.
Offutt, Vance	Campbellsb'g	R	D
Overman, W	Salem	PM	"
Paynter, H. M	Salem	R	"
Paynter, L. W	Campbellsb'g	R	"
Purkhiser, Will J.	Salem	R	"
Reed, Andy	Kossuth	R	"
Roberts, S. A	Salem	R	"
Spurgeon, A. N	Kossuth	R	"
Spurgeon, C. A	Kossuth	R	"
Sturdevant, G	Chestnut Hill	R	"
Wilson, Rich J	Salem	R	"

Regular, 35; Physio-Medical, 3; not reported, 1. Total, 39.

Wayne County.

Name.	Postoffice.	School.	Basis of License.
Allen, J. B	Camb'dge City	R	D
Beam, A. H	Williamsb'g	PM	"
Benham, H. R	Richmond	E	"
Best, W. P	Dublin	E	L
Bond, Charles I	Richmond	R	D
Bowers, L. G	Richmond	R	"
Boyd, H. B	Camb'dge City	R	"
Brower, E. V	Richmond	PM	"
Brown, E. L. A	Dublin	R	"
Bulla, J. M	Richmond	H	"
Canaday, N. F	Hagerstown	H	"
Clark, J. B	Economy	R	"
Colburn, C. P	Richmond	R	"
Cristion, H. B. T.	Richmond	E	"
Davis, T. Henry	Richmond	E	"
Dempsey, W. S	Richmond	R	"
Denham, F. H	Richmond	H	"
Ehle, A. H	E. Germant'n	E	"
Ewing, N. B. G	Richmond	R	"
Fouts, J. M	Centerville	R	"
Gabel, H	Centerville	R	"
Garber, P	Jacksonburg	R	"
Graham, W. B	Richmond	H	10 yrs.
Grant, G. H	Richmond	R	D
Griffis, W. T	Fountain City	E	"
Grosvenor, E. B	Richmond	H	"
Harold, I. S	Richmond	PM	"
Haughton, R. E	Richmond	R	"
Heiner, E. K	Hagerstown	R	"
Helm, W. M	Williamsburg	E	"
Henry, J. W	Richmond	R	"
Hervey, Minetta	Richmond	H	"
Hibberd, Jas. F	Richmond	R	D
Holloway, D. B	Richmond	NR	NR
Hopkins, R. R	Richmond	R	D
Huff, O. N	Fountain City	R	"
Huffman, W. G	Richmond	R	"
Johnston, M. F	Richmond	R	"
Jones, A. H	Whitewater	E	"
Kerr, J. D	Green's Fork	R	"
Kersey, S. H	Centerville	R	"
King, J. E	Richmond	R	"
Kinsey, J. H	Richmond	PM	"
Light, T. C	Dublin	E	"
Littell, W. R	Camb'dge City	R	"
Loop, A. L	Economy	R	"
Luken, J. H.	Richmond	R	"
Mank, J. B	Camb'dge City	R	"
Markley, S. C	Richmond	R	"
Marvel, Chas	Richmond	R	"
McCracken, A. J	Richmond	R	"
McDivett, E. G	Richmond	R	"
McKee, Chas. E	Dublin	E	"
Meek, Jos	Webster	R	"
Meek, M. L	Abington	R	"
Mond'hall, W. O'N.	Richmond	R	"
Mendenhall, Edw.	Abington	E	"
Morrow, S. J	Richmond	R	10 yrs.
Mottier, G. A	Richmond	R	D
Neff, W. W	Green's Fork	R	"
Pierce, E. E	Richmond	PM	"
Reisinger, Edw	Abington	R	"
Rife, J. J	Boston	R	"
Rusk, Anna	Richmond	PM	10 yrs.

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Wayne County—Continued.

Name.	Postoffice.	School.	Basis of License.
Schillinger, R.	Richmond	R	D
Shafer, O. B	Economy	R	"
Smith, S. E	Richmond	R	"
Stevenson, D. W	Richmond	R	"
Stotelmeyer, C. I	Hagerstown	R	"
Study, J. N	Camb'dge City	R	"
Summers, J. B	Milton	R	"
Sweeney, I. F	Milton	R	"
Swisher, W. H	Richmond	E	"
Taylor, J. E	Richmond	R	"
Taylor, T. W	Fountain City	R	10 yrs.
Thurston, E. H	Hagerstown	PM	10 yrs.
Thurston, H. E	Williamsb'g	PM	D
Thurston, J. M	Richmond	PM	"
Tillson, H	Centerville	R	"
Walls, J. A	Richmond	PM	"
Wampler, J. M	Richmond	R	"
Watts, E. K	Richmond	R	"
Weist, H. H	Richmond	R	"
Wright, J. E	Camb'dge City	H	"
Yencer, M. W	Boston	R	"
Zimmerman, W. W	Richmond	H	"

Regular, 55; Eclectic, 12; Homeopathic, 8; Physio-Medical, 10; not reported, 1. Total, 86.

Wells County.

Name.	Postoffice.	School.	Basis of License.
Bloxsom, A. W		NR	NR
Blue, Capolis L	Toesin	R	"
Botts, Edwin H	Zanesville	R	"
Bugh, John W	Bluffton	R	"
Caylor, David S	Camden	R	"
Cook, L. H	Bluffton	R	"
Daster, H	Poneto	R	"
Davenport, E. P	Craigsville	R	"
Dewees, Roy E	Keystone	PM	"
Dickson, F. M	Petroleum	E	"
Fisher, E. S	Markle	R	"
Fowler, W. N	Bluffton	H	"
Fulton, Geo. E	Bluffton	R	"
Fulton, John C	Bluffton	R	"
Garrell, A. G	Ossian	R	"
Garrett, E. W	Liberty Centre	R	"
Goodwin, S. A	Bluffton	R	"
Hatfield, I. N	Bluffton	R	"
Haughton, Asa	Kiepe	R	"
Heady, E. E	Uniondale	R	"
Hester, Geo. F	Toesin	R	"
Holcomb, J. H	Barber's Mills	R	"
Horne, Brose S	Bluffton	R	NR
Horton, Edwin R	Bluffton	E	"
Huffman, D. C	Craigsville	R	"
Landfair, Chas. L	Bluffton	E	"
Markley, H. W	Bluffton	R	"
Mason, Lenidas	Bluffton	R	"
McClain, M. W	Vera Cruz	PM	"
McKinney, J. W	Bluffton	R	"
Metts, A. H	Ossian	R	"
Metts, Fred A	Ossian	R	"
Metts, J. J	Ossian	R	"
Morris, Thomas	Mt. Zion	R	"
Neff, Isaac N	Mt. Zion	R	"
Newman, M. N	Ossian	R	"
Saunders, Jesse E	Petroleum	PM	"
Saunders, Joel E	Nottingham	NR	"
Severin, Louis	Bluffton	R	"
Shoemaker, S	Poneto	R	"
Spaulding, L. A	Bluffton	R	"
Springstead, A. E	Bluffton	H	"
Stockton, C. W	Bluffton	R	"
Warner, Wm	Vera Cruz	R	"

Regular, 33; Eclectic, 4; Homeopathic, 2; Physio-Medical, 3; not reported, 2. Total, 44.

White County.

Name.	Postoffice.	School.	Basis of License.
Blosser, H. V	Chalmers	E	NR
Brockway, C. T	Brookston	R	"
Carr, J. L	Monon	R	"
Clark, R. J	Monticello	R	"
Clayton, Geo. R	Monon	R	"
Clymer, J. T	Monticello	E	"
Cook, W. H	Wolcott	R	"
Cowger, S. R	Monticello	E	"
Cronk, C. F	Wolcott	R	"
Delzell, R. M	Reynolds	R	"
Didlake, M. T	Monticello	R	"
Henry, Edgar P	Monticello	E	"
Jones, A. B	Burnettsville	R	"
Kelley, D. M	Brookston	R	"
Lister, F. E	Brookston	R	"
McBeth, Walter	Burnettsville	R	"
McCann, J. D	Monticello	E	"
Medaris, J. W	Brookston	R	"
Minnick, H. R	Idaville	R	NR
Morris, Geo. M	Headler	R	"
Noland, J. W	Buffalo	R	"
Palmer, R. B	Idaville	E	"
Parrott, H. M	Burnettsville	R	"
Reagan, B. M	Monon	R	"
Reed, J. H	Monticello	R	"
Robison, F. B	Monticello	E	"
Sampson, Wm. H	Brookston	E	"
Schofield, R. K	Reynolds	R	"
Scott, Caleb	Monticello	PM	"
Sluyter, S. D	Chalmers	E	"
Smith, J. A	Wolcott	R	"
Smith, J. T	Brookston	R	"
Stuart, John T	Monon	R	"
Washburn, E. P	Buffalo	R	"
Wilkerson, H. L	Idaville	PM	"
Wilkerson, W. W	Idaville	PM	"

Regular, 24; Eclectic, 9; Physio-Medical, 3. Total, 36.

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Whitley County.

Name.	*Postoffice.*	*School.*	*Basis of License.*
Barnhill, W. A. D.	So. Whitley	H	D
Coyle, Wm. H.	Columbia City	R	"
Criswell, J. F	Churubusco	R	"
Eberhard, E. L	So. Whitley	R	"
Geary, J. K	Coesse	R	"
Gereiser, F. G	Columbia City	R	"
Herrold, R. P	Peabody	H	NR
Ireland, Martin	Columbia City	R	D
Keefer, T. R	Coesse	R	"
King, Wm. F	Columbia City	R	"
Kirkpatrick, D	Larwill	R	"
Kithcart, N. I	Columbia City	R	"
Lawrence, I. E	Columbia City	R	"
Linvill, D. G	Columbia City	R	"
Linvill, D. S	Columbia City	R	D
Magers, F. M	Churubusco	R	10 yrs.
Merriman, E	So. Whitley	R	D
Morrison, T. R	Churubusco	R	"
Richards, John	Laud	E	10 yrs.
Scott, J. W. C	Hecla	R	D
Shuman, O. V	Columbia City	R	"
Souder, C. L	Columbia City	R	"
Souder, Ralph	Larwill	R	"
Squires, J. W	Churubusco	R	"
Webster, M. W	So. Whitley	R	"
White, S. R	Laud	R	"
Williams, Alice B	Columbia City	R	"
Williams, C. S	Columbia City	R	10 yrs.

Regular, 25; Eclectic, 1; Homeopathic, 2. Total, 28.

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